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ABSTRACT

The fourth of four volumes of appendixes to the final technical report of the Great Lakes Region Special Education Instructional Materials Center (GLR SEIMC) consists of 21 reports (1973-74) on the classification, development, and evaluation of auditory learning materials; a report of activities and materials from the Consortium on Auditory Learning Materials for the Handicapped; and product reports on seven new auditory instructional materials developed by the GLR SEIMC. Included in the first series of reports are surveys on the curricular areas, auditory format, and instructional levels of available auditory learning materials: a list of 19 media references and source directories; ideas for use of audio flashcards; user guides to five listening materials; and an evaluation form for field testing materials. Among items contained in the consortium report are a chart of member unit activities and goals; a glossary of 35 auditory learning terms; consortium meeting proceedings; a catalog of listening skills materials for visually impaired students; and numerous forms, questionnaires, and letters used to compile information. The third section features information on the design, use, and evaluation of new instructional materials such as "A Job for You" and "Understanding Ourselves and Others." (LS)

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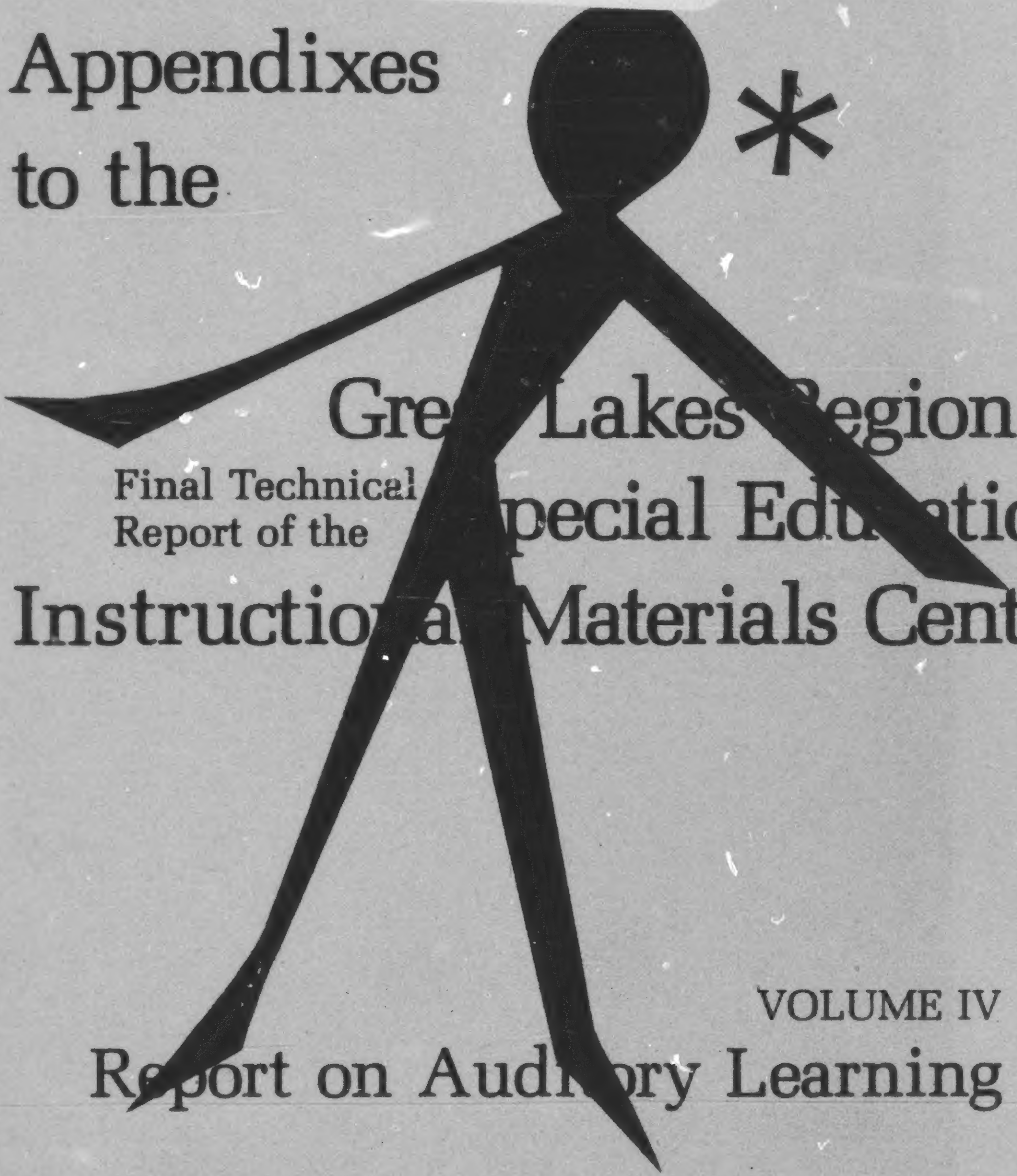

Appendixes to the

Final Technical
Report of the

Great Lakes Region Special Education Instructional Materials Center

VOLUME IV

Report on Auditory Learning

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Final Technical Report
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Continuation of
Appendixes to the Final Report of the
Great Lakes Region Special Education
Instructional Materials Center

Report on Auditory Learning

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Report on Auditory Learning

Occasional Papers on Auditory Learning Materials: A Collection of Selected Staff Reports

Consortium on Auditory Learning Materials for the Handicapped: A Report of Consortium Activities

New Product Reports: Information on new Auditory Instructional Materials Designed and Evaluated by the GLR SEIMC

GREAT LAKES
REGION
SPECIAL EDUCATION
INSTRUCTIONAL
MATERIALS
* CENTER

213 Erickson Hall Michigan State University East Lansing Michigan 48
Cooperating With State Departments of Education in Michigan-Indiana-Ohio

INTRODUCTION

This volume provides documentation of some of the many ideas, procedures, and schemes that were examined as part of the operation of the Media and Materials Development Unit and the Consortium on Auditory Learning Materials for the Handicapped. Both operations were funded as part of the Great Lakes Region Special Education Instructional Materials Center during fiscal year 1974.

The focus of both projects was on auditory instructional materials for handicapped children who learn best through the auditory mode. Learning through listening is an area within special education that has received little emphasis. Though procedures and materials are available for assessing auditory skills, little systematic effort has gone into examining how to maximize the auditory experience for handicapped children.

As a result of these two projects, a number of publications have become available on auditory instructional materials/auditory learning. Found in this report are a selection of some of the many papers written during the year by project staff which formed a basis for the published materials of the projects.

S. Joseph Levine, Ph. D.
Coordinator
Media and Materials Development Unit

*Member — Special Education IMC/RMC Network — Bureau of Education for the Handicapped — U.S. Office of Education — An Equal Opportunity Employer

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GREAT LAKES REGION SEIMC

MEDIA
AND
MATERIALS
DEVELOPMENT
UNIT

OCCASIONAL PAPERS ON AUDITORY LEARNING MATERIALS

A COLLECTION OF SELECTED STAFF REPORTS

The work presented herein was performed pursuant to a Grant from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

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AUDITORY LEARNING MATERIALS: THEIR CLASSIFICATION, DEVELOPMENT, AND EVALUATION

OVERVIEW

This report is a compilation of occasional papers generated by the staff of the Great Lakes Region Special Education Instructional Materials Center during the 1973-74 academic year. These papers are arranged within three major categories: (1) the classification of auditory learning materials; (2) the development of auditory learning materials; and (3) the evaluation and observations of auditory learning materials when used with children in the field.

BACKGROUND

During the 1973-74 school year, the Great Lakes Region Special Education Instructional Materials Center conducted a series of studies regarding auditory instructional materials and the nature of auditory learning. The focus of this effort was on an examination of auditory learning that related to advantaged instruction. Only those auditory instructional materials were evaluated that utilized the auditory mode for the communication of information. Remedial instruction, including the assessment and the development of auditory abilities (auditory perception, auditory figure/ground, etc.), was not examined. Advantaged instruction capitalizes on a student's strength; in this instance the strength was the auditory channel, and information was provided through this strong channel.

Based on the concept of advantaged instruction, the GLRSEIMC developed a series of correlated strategies that included the classification and evaluation of commercially available materials to make them more effective for auditory learners, and the design and development of new auditory instructional materials. A vital aspect of this effort was the classroom evaluation of these available, modified, and newly developed auditory instructional materials with handicapped children who best learn through the auditory modality. The compilation of occasional papers that follows describes, in part, the classification, development, and observations generated from this focus on auditory learning materials for the handicapped.

SECTION ONE

CLASSIFICATION OF AUDITORY INSTRUCTIONAL MATERIALS

OVERVIEW

A major focus of the staff's efforts during the 1973-74 academic year was the classification of auditory instructional materials. Inherent in such a classification effort was the determination of: (1) the availability of auditory instructional materials; (2) the sources, content areas, and emphases of such materials; and (3) the sampling of teachers' perspectives and perceived needs for the application of auditory instructional materials in their classrooms. Section One provides a brief overview of this effort.

AVAILABILITY OF AUDITORY INSTRUCTIONAL MATERIALS

by

LIN HORENSTEIN

On June 26 and 27, 1973, during an instructional materials exhibit in Erickson Hall, an informal survey of manufacturers' representatives was conducted. The survey dealt with the availability of auditory instructional materials. (Survey included on page two.)

SURVEY OF AUDITORY MATERIALS

Company name:

Total number of materials:

What amount of auditory instructional materials were displayed?

Do manufacturers (reps) show auditory materials very much?

Why or why not?

Are teachers interested in auditory materials?

Are auditory materials easy or hard to sell?

To whom are these materials primarily sold? (sec., elem., spec. ed., admin.)

What are the most popular materials?

SURVEY OF AUDITORY MATERIALS

--RESULTS--

Total number of manufacturers = 20
Number of print-only manufacturers = 5

The following results involved only those 15 manufacturers that did display auditory instructional materials:

1. *What amount of auditory instructional materials were displayed?*

--In 2 cases, auditory instructional materials comprised over 50% of total materials displayed.

--In 2 cases, auditory instructional materials comprised 25% to 30% of total materials displayed.

--In all other cases (11), 10% or less of total materials displayed had auditory components.

Mean # of items displayed = 20
Mean # of auditory type materials = 2.5

2. *Do manufacturers (reps) show auditory materials very much?*

a. 11 - Yes
4 - No

b. Why or Why not?

Yes - developing auditory components for almost all their items
- high interest

Yes, but - "if there is electrical outlet available..." (1 company)

No - just developing programs with auditory component
- more interest in other products (written) that the company puts out

3. *Are teachers interested in auditory materials?*

a. 10 - Yes
3 - Sometimes
2 - No

b. Why or Why not?

Yes - if correlated with written materials
- due to trend toward individualized instruction
- multi-media sells!
- interested in auditory materials as supplementary material

Sometimes - more willing to spend on written; will
buy if extra money available

No - more interest in [illegible] products company carries
- regard auditory materials as fancy frills
- not enough money, written materials come first

4. *Are auditory materials easy or hard to sell?*

a. Easy - 7
Hard - 8

b. Why?

Easy - not as controversial
- popular--interest growing
- individualizing popular--auditory lends itself
- multi-media presents attractive, modern package

Hard - depends on size of population
- more expensive
- texts are easier, auditory considered extra
- hard to get schools or districts to make large enough money allotments
- dependent on texts or programs they accompany
- they are too new
- lack of interest

5. *To whom are these materials primarily sold?*

a. Level:

elementary - 14
middle - 0
secondary - 1
college - 0

b. People:*

Media personnel (librarian, AV, etc.) - 7
Principals - 6
Superintendent or consultant - 1
Teachers - 1

*Most mentioned a combination of media personnel and principal

6. *What are the most popular materials?*

a. Area:

Reading - 7
Auditory Perception - 3
Social Studies - 3
Other
  Typing - 1
  All areas kits - 1

b. Form of Recording Offered

Cassette - 10
Record - 6
Tape - 1
(Some companies (2) offer choice of record or cassette with programs)

All of these materials were part of multi-media programs

c. Outstanding features (selling points):

--individualized
--good instruction (teacher's manual).
--sound plus filmstrip really popular
--includes testing materials
--can facilitate low readers with high interest materials
--variable speed control new--growing interest
--develops pre-reading perception skills
--high quality
--multi-media package is attractive and sells

Several manufacturers had unattended displays. Of these 8 were viewed.

a. 6 had some type of auditory material displayed. Only one had primarily audio-visual materials displayed.

b. Displays primarily concerned with areas of:
reading (5)
social studies (2)

c. All auditory materials displayed on these tables were components of multi-media programs.

CONCLUSION

In the educational marketplace there is not an abundance or a substantial variety of auditory instructional materials. Of all the products displayed by the manufacturers at this exhibit, only 10% were items that contained any type of auditory instructional materials. Although a manufacturer may not develop many materials with auditory components, what they do produce is generally displayed.

The available auditory instructional materials are almost exclusively components of multi-media programs. The majority of the programs are geared to the elementary level in the areas of reading and social studies. The most popular type of program is a high quality filmstrip with accompanying sound track. The filmstrip/audio-track programs are reasonably priced and can easily fit into a limited budget.

There are two main reasons that teachers are developing an interest in auditory instructional materials. First, with the trend toward individualized instruction, teachers see auditory materials as being easily adapted to this instructional format. Second, auditory instructional materials are included within the multi-media programs, presenting an attractive, marketable package which provides alternative and supplemental material.

However, auditory instructional materials are generally not easy to sell. Many educational institutions simply do not have the kind of funding to purchase more expensive items. (Multi-media programs cost at least 25-30% more than traditional textbook programs.) Interestingly, many purchases are made of just the visual components of multi-media packages, since the programs are generally not dependent on the auditory instructional materials and are often regarded as supplementary luxuries by professionals in the field of education.

There is a growing trend toward having media personnel, including librarians and audio-visual supervisors, in the schools. Representatives mentioned that the majority of multi-media programs are sold to these individuals, since they are the ones who have the type of budget that can handle the purchase of entire programs.

The use of auditory components in multi-media packages is growing. Representatives stated that their manufacturers were developing additional auditory materials to supplement already existing visual products, in response to growing teacher interest. However, these "new" programs will still be primarily for the elementary level especially in the area of reading.

In summary, the major finding of this survey is that auditory instructional materials, when available, are usually found in multi-media packages. They are perceived as being supplemental and not instrumental to learning. Other components of multi-media packages (visual, teacher's manual, testing materials) all appear to be more "attractive" and "necessary."

July 11, 1973

RESULTS OF PRELIMINARY SURVEY OF AUDITORY LEARNING MATERIALS

by

MARSHA C. SMITH

A preliminary survey of auditory learning materials was made by noting general characteristics of those materials available in the Great Lakes Region SEIMC. One hundred and eight (108) materials were identified as auditory learning materials. Results of a survey of these materials regarding curricular area, secondary modality of input, audio format and instructional level follow. (Note: the information in italics are remarks by the surveyor and are purely subjective.)

I. Curricular Area:

Percentage of materials in the following Curricular Areas:

Reading (includes readiness, listening, and perception)	32%
Social Studies	10%
Self care	9%
Science	8%
Career Development	7%
Motor skills	7%
Safety skills	5%
Math	5%
Sex Education	4%
Music (including rhythm)	4%
Self concept	4%
Commercial skills	2%
Toy	2%
Spelling	1%

Comments: It was interesting to note that of the reading materials (32%) most of the material was for auditory perception and listening rather than the actual teaching of reading. Almost all math material is for a primary instructional level.

II. Secondary Modality:

Visual	43%	
Tactile	4%	
Total	47%	have secondary input

Of the 43% that had a visual secondary modality, the breakdown of format was as follows:

Filmstrip	87%
Posters or cards	10%
Books	13%
Workbook	7%

Transparencies	7%
Dittos	4%
Puppets	4%
Filmloops	2%

Comments: Of the materials that were purely auditory most were phonodiscs.

III. Audio Format:

Audio format was revealed as:

Phono discs	56%
Cassette	36%
Other	3%
Reel-to-reel tape	3%
Vocal (verbal)	1%
Audio flashcard	1%

Comments: Some materials are available in both cassettes and phonodiscs. "Other" refers to talking machines, auditory stimuli stimulated by pulling a string, etc.

IV. Instructional Levels:

Suggested instructional levels varied and in many cases more than one level was specified. The breakdown indicated:

Primary	60%
Pre-school	43%
Secondary-Adult	30%
Intermediate	24%
Special education only	5%

Comments: Many materials are appropriate for several different instructional levels including Special Education. Delineation was difficult here and materials should be reviewed for use with specific children.

October 18, 1973

RESULTS OF SECOND SURVEY OF AUDITORY LEARNING MATERIALS

by

MARSHA C. SMITH

A second survey of available auditory learning materials was made in February, 1974. This second sample differed in several ways from the first. The field of materials examined, instead of consisting entirely of abstracts of MSU SEIMC acquisitions (the first survey), includes selected materials from the MSU SEIMC and those available from commercial sources but not available from the MSU SEIMC. All materials selected from commercial sources were chosen on the basis of instructional value for the population of auditory learners being focused on by the project. Also, all entries included in this second survey were actually examined first hand rather than included on the basis of descriptions (abstracts). As such, it is felt that this second survey is more representative of the general field of auditory learning materials. It should also be noted that this survey includes entire programs (with all components as sold together commercially) as well as materials that stand alone as individual units (and can be purchased as such).

2ND SURVEY

CURRICULAR AREA	
Affective self-concept	3%
Career development	6%
Communication skills	8%
Mathematics	15%
Motor skills	8%
Music (includes rhythm)	5%
Reading (includes readiness, listening, and perception	22%
Safety	3%
Science	14%
Self care	3%
Sex education	3%
Social Studies	18%
Spelling	2%

SECONDARY MODALITY	
Visual	52%
Tactile	1%
	53% have secondary input

Indicating that 47% of materials surveyed are purely auditory in nature. Of the visual, the breakdown indicates:

1ST SURVEY

CURRICULAR AREA	
Career development	7%
Commercial skills	2%
Math	5%
Motor skills	7%
Music (including rhythm)	4%
Reading (includes readiness, listening, and perception	32%
Safety skills	5%
Science	8%
Self care	9%
Self concept	4%
Sex education	4%
Social Studies	10%
Spelling	1%
Toy	2%

SECONDARY MODALITY	
Visual	43%
Tactile	4%
	47% have secondary input

Of those surveyed, 43% had a visual mode as a second source of input. Of that visual stimuli the breakdown of format was as follows:

2ND SURVEY

Books	2%
Dittos	6%
Filmstrips	42%
Posters or cards	8%
Transparencies	1%
Workbook or worksheets	27%
other	6%
INSTRUCTIONAL	16%
SUPPLEMENTAL	80%

AUDIO FORMAT

Audio flashcard	0%
Cassette	53%
Cassette or phonograph available	6%
Phonodiscs	37%
Reel-to-reel	8%

LEVEL FOR USE (either instructional or interest)

Pre-school (includes K)	13%
Primary	53%
Intermediate	30%
Secondary	20%
Special Ed *only*	2%
All	3%

TEACHER'S MANUAL INCLUDED: 4%

1ST SURVEY

Books	13%
Dittos	4%
Filmloops	2%
Filmstrip	87%
Posters or cards	10%
Puppets	4%
Transparencies	7%
Workbook	7%

AUDIO FORMAT

Audio flashcard	1%
Cassette	36%
Phono discs	56%
Reel-to-reel tape	3%
Vocal (verbal)	1%
other	3%

LEVEL FOR USE (either instructional or interest)

Pre-school	43%
Primary	60%
Intermediate	24%
Secondary-Adult	30%
Special Ed *only*	5%

SURVEY OF FIELD-TEST MATERIALS

A second mini-survey is taken from a field of 25 materials used in field-testing. These particular materials were first selected from the classification form on the basis of their

1) pre-post test possibility
2) usability with a minimum of modification
3) possible educational value
4) appropriateness for our population

The N=25 represents the 25 separate materials as they are available commercially. At the time of this survey 60 materials have been prepared for field-study. Of these 60 materials, as many as 4 were taken from one commercially available material. (i.e. Four field-test materials were devised from one Hap Palmer record. Only the record as produced commercially was counted in this survey.)

CURRICULAR AREA

Affective self-concept	16%
Consumer education	4%
Mathematics	16%
Reading (includes auding/ listening, etc.)	36%
Safety	8%
Science	8%
Social studies	16%

SECONDARY MODALITY

Visual	64%
Tactile	4%

Format of secondary modality:

Book	8%
Cards	20%
Filmstrip	32%
Workbook or worksheets	8%
other (clock, abacus)	8%

AUDIO FORMAT

Cassettes	60%
Record	40%

INSTRUCTIONAL LEVEL

Pre-school	12%
Primary	64%
Intermediate	20%
Secondary	4%
All	4%

INSTRUCTIONAL	20%
SUPPLEMENTAL	80%

2/74

MEDIA REFERENCES FOR AUDITORY LEARNING MATERIALS

Compiled by
WILLIAM ANDERSON

The following list of references and source directories is designed to assist teachers, administrators and specialists in locating large numbers of existing auditory learning materials. The listing has been divided into two groups: Group I, a list of basic references and directories; and Group II, a more specialized and supplemental listing of references and directories.

It should be noted that the prices given may have been changed by the publisher/distributor without notice.

GROUP I

BLUE BOOK OF AUDIOVISUAL MATERIALS, 48th edition, Educational Screen and Audiovisual Guide, 434 South Wabash Avenue, Chicago, Illinois, 60605. 1973. 60 pages. $2.50. Annual, in July/August issue of Educational Screen and Audiovisual Guide.

Listing of approximately 1200 titles in all media in 33 subject fields produced in the twelve months preceding publication. Includes reader service cards which include numbers for all producers and distributors to enable readers to channel requests for information concerning items through Educational Screen and Audiovisual Guide.

EDUCATORS GUIDE TO FREE TAPES, SCRIPTS AND TRANSCRIPTIONS, compiled and edited by Walter A. Wittich. 16th edition. Educators Progress Service, Randolph, Wisconsin 53956. 1973. 200 pages. $7.75. Revised annually.

Over 300 tapes, 15 scripts and 65 transcriptions in all instructional subjects including conservation, guidance, health education, homemaking, language arts, music, science, and social studies. Available on free loan to school superintendents, AV directors, librarians and teachers.

HARRISON TAPE CATALOG: OPEN REEL, CASSETTES AND 8-TRACK, M. & N. Harrison, Inc., 274 Madison Avenue, New York, N.Y. 10016. Cumulative catalog published bimonthly, $1 per single copy, $5 per yearly subscription. (Generally available at record and music shops.)

Approximately 1400 old and new tapes under such headings as: children's, language lessons, international, vocal, opera, folk, jazz and others. Each category includes a "what's new" list as well as cumulative list.

LEARNING DIRECTORY--INSTRUCTIONAL MATERIALS INDEX. Westinghouse Learning Corporation, 100 Park Avenue, New York, N.Y. 10017. 1970, with 1972 supplement. $99.50, $25.00 supplement.

This seven volume directory identifies over 205,000 audiovisual and instructional materials for all grade levels in all subject areas. Over 1000 different producers represented in directory. One of two most comprehensive audiovisual materials listings in existence. Reads like white pages of Los Angeles telephone directory.

LIBRARY OF CONGRESS CATALOG: MUSIC AND PHONORECORDS. 1953 to date. Semiannual with annual cumulations at $20. *Music and Phonorecords*, 1953-57 cumulation, issued as v.27 of the *National Union Catalog*. $20. 1049p. *Music and Phonorecords*, 1958-62 cumulation, issued as v.51 and v.52 of the *National Union Catalog*. v.51, $20. 1049p; v.52, $20. 514p. *Music and Phonorecords*, 1963-67 cumulation, issued in 3v., $75. Quinquennial volumes for 1953-57 and 1958-62 are for sale by Rowman and Littlefield, Inc., 84 Fifth Avenue, New York, N.Y. 10011. Quinquennial volumes for 1963-67 are for sale by J. W. Edwards, Inc., Ann Arbor, Michigan 48106. Current issues and annual cumulation available from the Library of Congress, Card Division, Building No. 159, Navy Yard Annex, Washington, D.C. 20541. The next quinquennial cumulation will cover the years 1968-72; therefore, there will be no annual cumulation for 1972.

Music scores intended for performance and sound phonorecords, musical and nonmusical. The nonmusical recordings cover all subject fields currently received by the Library of Congress and other American libraries participating in its cooperative cataloging program. Books about music and librettos have been included since 1963.

NATIONAL CENTER FOR AUDIO TAPES CATALOG, National Center for Audio Tapes, University of Colorado, Stadium Building, Boulder, Colorado 80302. 1972. 123 pages. $4.50.

Approximately 12,000 tapes selected on basis of curricular relevance and production quality which can be re-recorded for any individual, group, educational institution, or business firm provided that the restrictions are adherred to. Tape listings for all subject matters and grade levels.

NICEM, National Information Center for Educational Media, University of Southern California, University Park, Los Angeles, California 90007.

A. *Index to Educational Audio Tapes*, 1972, $36.50 (yearly update).

Lists and describes over 20,000 audio tapes for educational use. Identifies producer, distributor, grade level, content area, and availability. Selective search via computer with descriptors possible.

B. *Index to Educational Records*, 1972, $34.50 (yearly update)

Lists and describes over 18,000 educational records. Same information available as in other NICEM indexes.

SCHWANN RECORD AND TAPE GUIDE. Monthly Schwann Supplementary Record Guide; semiannual. W. Schwann, Inc., 137 Newbury Street, Boston, Massachusetts 02116 (Also available in some 3,800 record-tape shops in the United States.)

Guide includes over 35,000 titles from 770 companies in all subject areas. 1949-1969 listings availabe on 35 mm positive microfilm from: AMS Press, Inc., 56 East 13th Street., New York, N.Y. 10003. Schwann Children's Record Guide (1970), published annually for $.35 post-paid from publisher.

GROUP II

AN ANNOTATED LIST OF RECORDINGS IN THE LANGUAGE ARTS, compiled and edited by Morris Schreiber. National Council of Teachers of English, 508 South Sixth Street, Champaign, Illinois 61820. 1971. Stock Number 47906. 83 pages. $1.75.

An annotated selected list of records to aid English teachers in elementary schools, secondary schools in subject areas of American literature, folk literature, American history, world history, social studies, English and American poetry and prose, drama, Shakespeare, documentaries, lectures, speeches, and anthologies, 436 entries.

AUDIOVISUAL MARKETPLACE--A MULTIMEDIA GUIDE, J. A. Neal, Editory. R.R. Bowker Company, 1180 Avenue of the Americas, New York, N.Y. 10036. 1972. 293 pages. $15.00.

A guide to producers and distributors of audiovisual materials, free loan and audio tape exchange centers, educational radio and television stations, audiovisual associations, audiovisual reference materials, audiovisual periodicals and review services, and audiovisual services such as: cataloging, dealers, laboratories, and equipment rental.

THE BLACK RECORD: A SELECTIVE DISCOGRAPHY OF AFRO-AMERICA ON AUDIO DISCS, Washington University Libraries, Audio-Visual Department, St. Louis, Missouri 63130. 1970. 13 pages. $50 prepaid, $1.50 if billing required.

More than 100 phonodiscs dealing with black history. Documentary and spoken word recording classifications include biographical material, speeches, poetry, prose and drama. Emphasis is placed on "authentic" folk recordings and they range from origins in Africa to "Songs of the Selma-Montgomery March."

EDUCATORS GUIDES TO FREE MATERIALS, Educators Progress Service, Randolph, Wisconsin 53956.

1. Free Guidance Materials - $8.75
2. Free Social Studies Materials - $9.50
3. Free Health, Physical Education and Recreation Materials - $8.00
4. Free Science Materials - $9.25

Generally available listings of free-loan educational and informational multi-media materials. Each directory contains at least 50 tapes. Classified by medium and subject, then alphabetical by title.

EDUCATIONAL MEDIA INDEX: A PROJECT OF THE EDUCATIONAL MEDIA COUNCIL. McGraw-Hill Book Company, New York, N.Y. 10036. 1964. 14 volumes. $62.45. Individual volumes available separately at various prices. (Limited supply available from Educational Media Council, Inc., DuPont Circle Building, Suite 710, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Over 28,000 titles of media (all types) in all subject matters from kindergarten to adult education. Entries include subject heading, type of medium, producer-distributor, length, grade level, and availability.

EDUCATOR'S PURCHASING GUIDE (formerly Fisher Publishing Company's EPM), 5th Edition, North American Publishing Company, 134 North Thirteenth Street, Philadelphia, PA 19107. 1973. $21.50.

A reference guide to producers of instructional and audiovisual materials and equipment for all grade levels and disciplines of education. Included are product listings, product information sections, producer/manufacturer sections, and a trade name section.

GENERAL CATALOG OF TALKING BOOKS, American Printing House for the Blind, Inc., 1839 Frankfort Avenue, P.O. Box 6085, Louisville, KY 40206. 1973.

Talking books (recorded at 16 2/3 rpm or 8 1/3 rpm) have been listed according to school subjects. All are available for purchase from APH. Note talking books require special playback equipment (also available from APH.) A listing of audio tape cassettes is also available free from the American Printing House under a separate cover.

FOLK MUSIC: A CATALOG OF FOLK SONGS, BALLADS, DANCES, INSTRUMENTAL PIECES, AND FOLK TALES OF THE UNITED STATES AND LATIN AMERICA ON PHONOGRAPH RECORDS, U.S. Library of Congress, Reference Department, Music Division, Recording Library, Washington, D.C. Available from U.S. Government Printing Office, Washington, D.C., 20402. 107 pages. $.40.

Records representing a sampling of the best of more than 16,000 records in the Archive of Folk Song of the Library of Congress. Included in catalog are 107 discs (78 rpm) containing 341 titles and 59 discs (33 1/3 rpm) with 899 titles of folk music and tales recorded in the field with portable recording equipment, for sale by the Library of Congress.

GUIDES TO EDUCATIONAL MEDIA, 3rd edition, Margaret I. Rufsvold and Carolyn Guss, American Library Association, 50 East Huron Street, Chicago, Illinois 60611. 116 pages. $2.50.

A guide to catalogs and references, services of professional organizations, and specialized periodicals which systematically provide information on nonprint educational media. Identifies and describes 153 educational media references and is more comprehensive than selective.

NEW EDUCATIONAL MATERIALS, compiled by Mary L. Allison, Citation Press, 50 Forty-fourth Street, New York, N.Y. 10036. 1970. 256 pages. $3.75.

Annotated listing of films, phonodiscs, phonotapes, multimedia kits, charts, etc., for the classroom teacher from prekindergarten through the twelfth grade. Many materials have evaluative comments.

SPOKEN RECORDS, by Helen Roach. Scarecrow Press, Box 656, Metuchen, New Jersey 08840. 1970. 288 pages. $7.50.

More than 500 spoken recordings including documentaries, lectures, interviews and readings by authors. Arranged by subject categories, then alphabetical by title.

AUDITORY LEARNING MATERIALS
AVAILABLE FROM
EDUCATIONAL RADIO STATIONS

Compiled by
WILLIAM ANDERSON

Educational radio stations (noncommercial stations licensed and supported by school districts, colleges, and universities) have a long history of providing instructional and educational programming to public school and specialized audiences. The following list of educational radio stations (extracted from Audio-visual Market Place, 1972-73) maintain audiotape and record libraries of selected programs. Many of these programs and series are effective auditory learning materials for children which are not available from commercial or other sources. Availability varies, but many make copies available on a loan, rental or cost of duplication basis.

For a sample of materials available from educational radio stations, Appendix A contains information and offerings from WHA Radio, Madison, Wisconsin.

ARIZONA

KFCA-FM
Mr. Charles E. Buzzard
Maricopa County Community College
1202 West Thomas Road
Phoenix, Arixona 85013
(602) 264-2492

Maintains a library of audiotap available on rental to schools, libraries, individuals, etc. Contact for listing.

CALIFORNIA

KPFA-FM
Mr. Judson Snyder, Director
Pacifica Foundation
2207 Shattuck Avenue
Berkeley, California 94704
(415) 848-6767

aintains a library of audiotapes for sale to schools, libraries, adio stations, industry and individuals. Catalog available.

KDVS-FM
Mr. Richard Anderson, General Manager
Radio KDVS
c/o ASVCD
University of California
Davis, California 95616
(916) 752-2776

Tape catalog available.

KFJC-FM
Mr. John Hasling, General Manager
Foothill College
12345 Elmonte Road
Los Altos Hills, CA 94022
(408) 948-9870

aintains a library of audiotapes vailable on exchange or sale to chools, libraries, industry, etc.

CALIFORNIA (continued)

KPFK-FM
Mr. Will I. Lewis, General Manager
Pacifica Foundation
Los Angeles, California 90038
(213) 877-2711

Audiotapes available for small cost to all interested parties. Catalog available.

KUSC-FM
Mr. Douglas Culver, Manager
University of Southern California
University Park
Los Angeles, California 90007
(213) 746-7808

Catalog of programs available.

KXLU-FM
Mr. Rene A. Marclan, General Manager
Loyola University of Los Angeles
7101 West 80th Street
Los Angeles, California 90045
(213) 670-1043

Classical and jazz musical program.

KVCR-FM
Mr. Robert G. Burningham
San Bernardino Community College
701 South Mt. Vernon Avenue
San Bernardino, California 92403
(714) 885-0234

Library of programs produced is available on audiotape on exchange or free basis to radio stations.

KSJS-FM
Mr. William Hall, General Manager
San Jose State College
San Jose, California 95114
(408) 294-6414 ext. 2550

Catalog of programs available.

A' FORNIA (continued)

KCSM-FM
Dr. Jacob H. Wiens, General Manager
San Mateo Junior College
1700 W. Hillsdale Blvd.
San Mateo, California 94402
(415) 574-6427

rograms available on audiotape on
oan to schools, libraries, industry,
ther radio stations.

KCRW-FM
Santa Monica Unified School Dist.
1723 4th Street
Santa Monica, California 9040
(213) 393-2785

aintains a library of audiotapes and
ecords. Catalog of programs avail-
ble.

KUOP-FM
Mr. James H. Irwin
iversity of the Pacific
3601 Pacific Avenue
Stockton, California 95204
(209) 946-2330 ext. 2379

aintains a library of audiotapes
vailable to schools, libraries, in-
ustry, etc. on exchange basis or
ale--very nominal charge. Program
uick available.

OLORADO

KRCC-FM
Mr. Phil Ershler, Program Director
Colorado College
Colorado Springs, Colorado 80903
(303) 473-2233 ext. 335

aintains a library of audiotapes
vailable on exchange or loan to
chools.

COLORADO (continued)

KUNC-FM
Dr. William Hurt, Program Director
University of Northern Colorado
Greeley, Colorado 80631
(303) 351-3333

Maintains a library of audiotapes available on exchange or loan to schools and individuals.

KWSB-FM
Ms. Barbara Hess, Program Manager
Western State College of Colorado
Box 928
Gunnison, Colorado 81230
(303) 641-2131

Maintains a library of audiotapes available on exchange or loan to schools and other organizations rent free.

CONNECTICUT

WPKN-FM
Mr. Jeffrey N. Tellis, General Manager
University of Bridgeport
244 University Avenue
Bridgeport, Connecticut 06602
(203) 336-5364

Maintains a library of audiotapes for sale to schools, libraries, industry, individuals, and other radio stations.

WRTC-FM
Mr. Kevin S. Gracey, Program Director
Trinity College
Box 1368
Hartford, Connecticut 06106
(203) 522-9229

Programs available on 1/4 inch audiotape. Send for listing of available programs.

NNECTICUT (continued)

WESU-FM
Mr. William Hutchins
Wesleyan Broadcast Association, Inc.
Box 2300 Wesleyan Station
Middletown, Connecticut 06457
(203) 346-7791

aintains a library of audiotapes
vailable on rental to schools,
ibraries, and non-profit organi-
ations.

WWUH-FM
Dr. Daniel Viamonte
University of Hartford
200 Bloomfield Avenue
West Hartford, Connecticut 06117
(203) 523-4647

aintains a library of audiotapes
vailable on exchange.

ISTRICT OF COLUMBIA

WAMU-FM
Ms. Susan Harmon, General Manager
The American University
Massachusetts & Nebraska Ave., N.W.
Washington, D.C. 20016
(202) 686-2692

rogram guide available.

WETA-FM
Mr. Donald V. Taverner
The Greater Washington Educational
Telecommunications Association, Inc.
2600 Fourth St., N.W.
Washington, D.C. 20001
(202) 387-1300

atalog of audiotape programs
vailable.

FLORIDA

WUSF-FM
Mr. Richard Steck, Station Manager
University of Southern Florida
4202 Fowler Avenue
Tampa, Florida 33620
(813) 974-2341

Maintains a library of audiotapes available on exchange, loan and rental. Available on application. Program catalog available.

WPRK-FM
Dr. Charles A. Rodgers
Rollins College
Winter Park, Florida 32789
(305) 646-2375

Maintains library of audiotapes and 33 1/3 records. Contact for catalog.

ILLINOIS

WSIU-FM
Mr. John Kurtz, General Manager
Southern Illinois University
1056 Communications Bldg.
Carbondale, Illinois 62901
(618) 453-4343

Audiotape programs available. Free catalog, programs available to commercial and educational broadcasts, schools and colleges.

WBEZ-FM
Ms. Elizabeth E. Marshall
Board of Education, City of Chicago
228 North LaSalle Street
Chicago, Illinois 60601
(312) 641-4088 ext. 90

Library of programs occasionally available on exchange or loan to schools, libraries, other radio stations. Annual schedule available upon request.

ILLINOIS (continued)

WGLT-FM
Mr. Ben Paxton, Jr.
Illinois State University
Normal, Illinois 61761
(309) 436-6691

udiotape programs. Catalog vailable.

WMTH-FM
Mr. William R. Mitchell,
General Manager
School District #207
Dempster and Potter Road
Park Ridge, Illinois 60068
(312) 696-2525 ext. 562

aintains a library of programs.

NDIANA

WFIU-FM
. James Perry, Education Director
Indiana University
Board of Trustees
Bloomington, Indiana 47401
(812) 337-1357

atalog of programs available on imited basis.

WPSR-FM
Mr. Robert S. Edelman
Evansville-Vanderburg School Corp.
726 Wedeking Avenue
Evansville, Indiana 47711
(812) 425-1801

ibrary of tapes available to schools. atalog available.

WFCI-FM
Mr. Raymond Cowan, Education
Director
Franklin College of Indiana
Franklin, Indiana 46131

log available.

INDIANA (continued)

WGVE-FM
Mr. Lawrence Ventura, General
Manager
School City of Gary
1800 E. 35 Street
Gary, Indiana 46409
(219) 962-7571

Maintains a library.

WGCS-FM
Mr. Ray Vinble, Program Director
Goshen College Broadcasting Corp.
Goshen College
Goshen, Indiana 46526
(219) 533-3161

Catalog of programs available.

WIAN-FM
Mr. Arthur Van Allen
Indianapolis Board of School
Commissioners
931 Fletcher Avenue
Indianapolis, Indiana 46203
(317) 638-3493

Maintains library of audiotapes.

WICR-FM
Mr. William Byer, General Manager
Indiana Central University
4001 Otterbein Avenue
Indianapolis, Indiana 46227
(317) 783-3730

Maintains library of audiotapes available to anyone for exchange, loan, sale, rent, free, or for postage. List of programs available.

WBST-FM
Mr. M. John Eiden, Assistant
Readio Station Manager
Ball State University
Center for Radio and TV
Muncie, Indiana 47306
(317) 285-1833

Catalog of programs available for exchange, loan, rent, sale, or free.

BEST COPY AVAILABLE

INDIANA (continued)

WBAA-AM
Mr. R. U. Forsythe, Educational Director
Purdue University
Hall of Music
West Lafayette, Indiana 47907
(317) 749-2385

Library of tape recordings available on exchange, loan or sale to schools.

IOWA

KDPS-FM
Dr. E. Keith Kyde, Education Director
Des Moines Independent Community School District
1800 Grand Avenue
Des Moines, Iowa 50307
(515) 284-7723

Maintains a tape library.

WSUI-AM
Mr. George Klingler, Education Director
University of Iowa
Iowa City, Iowa 52240
(319) 353-5666

Maintains library of audiotapes available on exchange, rental, or sale to schools and libraries.

KRNL-FM
Dean Robert A. Reid, Education Director
Cornell College
Mount Vernon, Iowa 52314
(319-895-6239

Audiotapes of documentary and special events programs available free, on exchange, or sale (depending on the type of program). Catalog available.

IOWA (continued)

KWAR-FM
Mr. Robert C. Gremmels, Advisor
Wartburg College
Waverly, Iowa 50677
(319) 352-1200 ext. 306

Catalog of programs available.

KANSAS

KFKU & KANU-FM
Mr. Richard F. Wright, Operations Director
The University of Kansas
Broadcasting Hall
Lawrence, Kansas 66044
(913) 864-4530

Catalog available.

KENTUCKY

WBKY-FM
Mr. Don Wheeler, General Manager
University of Kentucky
McVey Hall
Lexington, Kentucky 40506
(606) 257-2733

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WEKU-FM
Mr. James Harris, Director, Division of Instructional Services
Eastern Kentucky University
Richmond, Kentucky 40475
(606) 622-2475

Audiotapes of programs available on exchange or loan to schools, libraries, industry and other radio stations. Catalog of programs available.

IE

WMEB-FM
Mr. Wofford G. Gardner, Education Director
University of Maine
240 Stevens Hall
Orono, Maine 04473
(207) 581-7385

aintains a library of audiotapes vailable to schools, libraries, ndustry, individuals, and other adio stations. Catalog of programs vailable.

ASSACHUSETTS

WCFR-FM
Mr. Arthur R. Cohen, Program Director
University of Massachusetts
Hampshire House
Amherst, Mass. 01002
'413) 545-0100

aintains a library of audiotapes vailable on exchange, loan or sale.

WMUA-FM
Mr. Kenneth L. Horseman
English Building
University of Massachusetts
Amherst, Mass. 01002
(413) 545-2878

aintains a library of audiotapes vailable on exchange or loan to chools and individuals.

WPAA-FM
Mr. Peter Halley, Program Director
Phillips Academy
Andover, Massachusetts 01810
(617) 475-3404 ext. 86

apes of lectures and special prorams are available for price of ape, or free if tape is supplied i h request.

MASSACHUSETTS (continued)

WBUR-FM
Mr. Stephen Schlow, Program Director
Boston University
630 Commonwealth Avenue
Boston, Mass. 02215
(617) 353-2790

Maintains a library of audiotapes, records--33 1/3, 78 and 45.

WTBS-FM
Professor Arnold Amstutz, MIT
WTBS Foundation, Inc.
3 Ames Street
Cambridge, Mass. 02142
(617) 868-9827

Maintains a library of audiotapes available on exchange or sale to schools, libraries, industry, etc. Catalog of programs available.

WMHC-FM
Ms. Eloise Fuller, Station Manager
Mount Holyoke College
S. Hadley, Mass. 01075
(413) 538-2044; 2063

Maintains a library of audiotapes and records (33 1/3 and 45) available on exchange or loan to schools.

WAIC-FM
Mr. Joe English, Educational Director
American International College
Springfield, Mass. 01109
(413) 737-5332 ext. 232

Maintains a library of audiotapes available on exchange or loan to schools and libraries.

MICHIGAN

WVAC-FM
Mr. Roger Wallace, President and Educational Director
Adrian College
110 S. Madison Street
Adrian, Michigan 49221
(313) 265-5161 ext. 440

Maintains a library of audiotapes available on exchange or loan to schools and libraries.

WDTR-FM
Dr. Dorothy F. Patterson
Program Director
Detroit Board of Education
9345 Lawton Avenue
Detroit, Michigan 48206
(313) 833-7900 ext. 2161

Audiotapes of programs available on exchange or sale to schools, libraries, industry and other radio stations. Program guides available.

WKAR & WKAR-FM
Mr. Richard Estell, Educational Director
Michigan State University
East Lansing, Michigan 48824
(517) 355-6540

Broadcasts fine arts and information programs. Operates tape distribution services, primarily for Michigan radio stations. Some programs available at cost to schools, library services, etc.

WMUK-FM
Dr. Charles Woodliff, Director
Division of Instructional Communications
Western Michigan University
Maybee Music Building
Kalamazoo, Mich. 49001
(616) 383-1921

Maintains a library of audiotapes available on exchange or loan and sale to schools or educational or commercial stations.

MICHIGAN (continued)

WEMU-FM
Mr. Richard E. Jacques, Program Director
Eastern Michigan University
130 Quirk Building
Ypsilanti, Michigan 48197
(313) 487-3197; 2229

Maintains library of audiotapes available on exchange or loan, rental and sale (determined by use) to schools, libraries, industry, other radio stations.

MINNESOTA

KSJR-FM
Mr. William H. Kling, President
Minnesota Educational Radio, Inc.
Collegeville, Minn. 56321
(612) 363-7702

Maintains a library.

KUOM
Ms. Marion Watson, Educational Director
University of Minnesota
Eddy Hall
Minneapolis, Minn. 55455
(612) 373-3177

Audiotapes of programs available free to schools, libraries, individuals and other radio stations. Catalog of programs available.

KSJN
Mr. W. H. Kling, President
Minnesota Educational Radio, Inc.
30 E. 10th Street
St. Paul, Minn. 55101
(612) 224-4711

Maintains a library of audiotapes for sale to schools, libraries, industry and to individuals.

I[illegible]OURI

KWWC-FM
Professor Lowell A. Connor II
General Manager
Stephens College
Columbia, Missouri 65201
(314) 442-2211

aintains a library of audiotapes; vailability varies with type of aterial.

EVADA

KUNR-FM
Mr. Donald G. Potter, Educational Director
University of Nevada
Reno, Nevada 89507
(702) 784-6591

aintains a library of audiotapes, ibrary of programs available for ental to schools and other radio [illegible]ions.

EW JERSEY

WGLS-FM
Mr. Robert Blake, General Manager and Educational Director
Glassboro State College
P.O. Box 116
Glassboro, New Jersey 08028
(609) 445-7335

atalog available.

EW MEXICO

Mr. Lance A. Woodworth, General Manager
New Mexico Union
University of New Mexico
Albuquerque, New Mexico 87106
(505) 277-4806

[illegible]ntains a library of audiotapes vailable on exchange or loan to chools, libraries, industry, etc.

NEW MEXICO (continued)

KRWG-FM
Mr. Harvey Jacobs, Educational Director
New Mexico State University
Box 3J, University Park
Las Cruces, New Mexico 88001
(505) 646-4525

Maintains a library of audiotapes available on exchange or loan to schools.

NEW YORK

WNYE-FM
Mr. James F. Macandrew, President
Board of Education
City of New York
29 Fort Greene Place
Brooklyn, New York 11217
(212) 596-3335

Maintains a library of audiotapes available on exchange or loan. Catalog available.

WBFO-FM
Mr. Don G. Blakely, President
State University of New York
3435 Main Street
Buffalo, New York 14213
(716) 831-5393

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WSLU-FM
Mr. Richard D. Hutto, General Manager
The St. Lawrence University
Canton, New York 13617
(315) 379-5356; 6302-3

Free audiotapes of programs available to schools and libraries.

NEW YORK (continued)

WGSU-FM
Mr. John A. Davlin, Educational Director
Board of Trustees
State University of New York
State University College
Geneseo, New York 14454
(716) 245-5586

Maintains a library of audiotapes available on exchange.

WVHC-FM
Dr. George N. Gordon, Director
Communications Center
Hofstra University
1000 Fulton Avenue
Hempstead, New York 11550
(516) IV9-8870, 560-3389

A library of audiotape programs is available; programs on 1/4 inch audiotape are issued on a rental basis to institutions at $15.00 per tape average (prices vary according to type and duration of program). Tapes available to libraries on a sale basis, prices on request. Catalog of programs sent on request.

WSHR-FM
Mr. Richard E. Fearns, Advisor
Radio Communications
Board of Education of Central School District No. 5 (Sachem Central)
245 Union Avenue
Holbrook, New York 11741
(516) 588-2700

Maintains a library of audiotapes. Library of programs available on loan to schools, libraries, industry, individuals, other radio stations.

WICB-FM
Mr. Rudy Paolangeli, Radio Director
Ithaca College
Ithaca, New York 14850
(607) 274-3214

Maintains a library of audiotapes available on exchange or loan.

NEW YORK (continued)

WBAI-FM
Mr. Edwin A. Goodman, Manager
WBAI-FM, Inc.
(Pacifica Foundation)
359 E 62 Street
New York, N.Y. 10021
(212) VA6-0880

Tapes of programs available on loan and sale to individuals and to other radio stations. Catalog of programs available.

WKCR-FM
Mr. Michael M. Meadvin, President
208 Ferris Booth Hall
Columbia University
New York, N.Y. 10027
(212) 280-5011

Tapes of programs available for sale to schools, libraries, industry, individuals and other radio stations.

WNYC
Mr. Seymour N. Siegel, Director
Municipal Broadcasting System
2500 Municipal Building
New York, N.Y. 10007
(212) 566-2115

Maintains a library of audiotapes available on exchange or loan, rental and sale to schools, libraries, etc.

WTSC-FM
Mr. Stanley Rowin, General Manager
Clarkson College of Technology
Potsdam, New York 13676
(315) 265-7180

Maintains a library of audiotapes available on exchange or loan to schools.

WRUR-FM
Mr. Sam Scott, Program Directc
University of Rochester Broadcasting Corp.
Box 5068
Rochester, New York 14627
(716) 461-1450

Maintains a library of audiotapes

W YORK (continued)

WHAZ
Mr. Dick West, Director
Box 784
Troy, New York 12181
(518) 272-1010

Selected library of audiotapes available on rental and sale.

NORTH CAROLINA

WUAG-FM
Mr. Emil W. Young, Jr., Director
Radio and T.V.
University of North Carolina
at Greensboro
Greensboro, North Carolina 27412
(919) 379-5405

Maintains a library.

WEDD-FM
Dr. Julian C. Burroughs, Jr.
General Manager
Box 7405
Wake Forest University
Winston-Salem, N.C. 27109
(919) 725-9711 ext. 218

Audiotapes of programs available to schools, individuals and other educational radio stations.

NORTH DAKOTA

KFJM
Mr. D. E. Beach, Director of Radio
University of North Dakota
Box 8116
Grand Forks, N.D. 58201
(701) 777-2577

Maintains a library of audiotapes and film (16 mm) on exchange or loan and rental to schools, libraries, industry, etc.

OHIO

Dr. Ruth Lewis, General Manager
University of Akron
302 E. Buchtel Avenue
Akron, Ohio 44304
(216) 762-2112

Maintains a library of audiotapes and videotapes available on exchange or loan and rental to schools, libraries, industry, etc.

WOUB-AM-FM
Mr. Joseph Welling, Director of
Broadcasting
Ohio University
College Street
Athens, Ohio 45701
(614) 594-5321

Maintains a library of audiotapes available on exchange or loan, rental and free to schools, libraries, industry, etc.

WCDR-FM
Mr. Paul Gathany, General Manager
Cedarville College
N. Main and College
Cedarville, Ohio 45314
(513) 766-2231

Maintains a library of audiotapes and tape duplication facilities.

WBOE-FM
Mr. Charles E. Siegel, Educational
Director
Board of Education
Cleveland City School District
1380 E. 6 Street
Cleveland, Ohio 44114

Catalog of programs available upon request.

WOSU & WOSU-FM
Mr. Thomas C. Warnock, General
Manager
Ohio State University
2400 Olentangy River Road
Columbus, Ohio 43210
(614) 421-2540

Maintains a library of audiotapes available on rental to schools,

OHIO (continued)

WKSU-FM
Mr. John Perry, General Manager
Kent State University
Main and Horning Road
Kent, Ohio 44242
(216) 672-2376; 7997

Maintains a library of audiotapes available on rental to schools and libraries.

WOBC-FM
Mr. Charles Perego, Educational Director
Oberlin College Student Network, Inc.
Wilder Hall
Oberlin, Ohio 44074
(216) 774-1059

Maintains a library of audiotapes available on exchange or loan to schools. Program catalog available.

WMUB-FM
Dr. Stephen C. Hathaway
Director of Telecommunications
Miami University
Telecommunications Service
Oxford, Ohio 45056
(513) 529-3521

Maintains a library of audiotapes available on exchange or loan and rental to schools, libraries, industry, etc.

WCSU-FM
Mr. Willis Parker, Program Director
Central State University
Wilberforce, Ohio 45384
(513) 376-7223

Maintains a library of audiotapes and videotapes available on rental, sale and free to schools, libraries, industry, etc.

OHIO (continued)

WYSO-FM
Mr. Dale Crouse, General Manager
Antioch College
Antioch College Union
Yellow Springs, Ohio 45387
(513) 767-7715

Library of programs (audiotapes) available on exchange or sale. Tape exchange programs and catalog are available.

OREGON

KOAC
Mr. Donald R. Larson, Educational Director
State Board of Higher Education
Covell Hall
Corvallis, Oregon 97331
(503) 754-1311

Audiotapes of programs available on sale to schools, libraries. Catalog available.

PENNSYLVANIA

WMUH-FM
Rev. George F. Eichorn, Educational Director
Muhlenberg College
Box 10B
Allentown, Pennsylvania 18104
(215) 433-5957

Maintains a library of audiotapes and printed scripts available on exchange or loan and sale to schools

WGEV-FM
Mr. Thomas Lenz, General Manager
Geneva College
Board of Trustees
Beaver Falls, Pennsylvania 15010
(412) 846-5100

Maintains a library of audiotapes available on exchange or loan.

PENNSYLVANIA (continued)

WUHY-FM
Mr. Nathan Arnold Shaw, Station Manager
WHYY, Inc.
4548 Market Street
Philadelphia, PA 19139
(215) EV2-9300

Audiotapes of programs available on exchange basis to education and non-commercial stations upon request.

SOUTH DAKOTA

KUSD-AM-FM
Mr. Jack Bruce, Director of Radio
University of South Dakota
Vermillion, South Dakota 57069
(605) 677-5277

Maintains a library of audiotapes available on exchange or loan to schools (in-state only).

TENNESSEE

WSMC-FM
Mr. Don Self, Program Manager
Southern Missionary College
Box 870
Collegedale, Tennessee 37315
(615) 396-2320

Maintains library of audiotapes available on exchange or sale to schools, libraries, industry, individuals, other radio stations. Listing of services and prices available.

WPLN-FM
Mr. David Marshall Stewart, Educational Director
Public Library of Nashville and Davidson County
Eighth Avenue N. and Union
Nashville, Tenn. 37203
(615) 244-4700

Maintains a library. Items are available only on individual arrangement.

TEXAS

KUT-FM
Mr. Robert F. Schenkkan, Manager
University of Texas
Box 7158, University Station
Austin, Texas 78712
(512) 471-1631

Audiotapes of programs available for rental and sale to other radio stations. Catalog available.

KTCU-FM
Mr. Larry Lauer, Program Director
Texas Christian University
Fort Worth, Texas 76129
(817) WA6-2461

Maintains a library of 16mm motion pictures and audiotapes available on exchange or loan to schools, libraries, industry, etc.

KTXT-FM
Mr. Clive Kinghorn, Educational Director
Texas Tech. University
Tech Station
Lubbock, Texas 79409
(806) 742-6276

Maintains a library of audiotapes available on exchange or loan or free (for cost of tape).

KOCV-FM
Mr. Wally Jackson, Faculty Director
Odessa College
Box 3752
Odessa, Texas 79760
(915) FE7-5381

Maintains a library of audiotapes and records (33 1/3 and 45).

KSYM-FM
Ms. Jean M. Longwith, General Manager
San Antonio College
1300 San Pedro Avenue
San Antonio, Texas 78284
(512) PE4-5381, ext. 381

Program catalog available.

TEXAS (continued)

KWBU-FM
Mr. Joseph C. Walters, General Manager
Baylor University
Waco, Texas 76703
(817) 755-1511

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

UTAH

KBYU-FM
Mr. Earl J. Glade, Jr., Director, Broadcast Services
Brigham Young University
C-306 Harris Fine Arts Center
Provo, Utah 84601
(801) 374-1211 ext. 3552

Audiotapes of programs available on exchange or rental to schools, educational and commercial radio stations. Catalog available upon request.

VERMONT

WNUB-FM
Mr. Peter La France, Educational Director
Norwich University
Jackman Hall
Northfield, Vermont 05663
(802) 485-5011 ext. 75

Maintains a library on exchange, loan, rental or sale to schools, libraries, industry, individuals and other radio stations.

VIRGINIA

WLUR-FM
Mr. Ronald H. Macdonald, General Manager
Washington and Lee University
P.O. Box 1153
Lexington, Virginia 24450
(703) 463-2181

Maintains a library of audiotapes available on exchange or loan to schools.

WRFK-FM
Mr. Robert W. Kirkpatrick, Genera Manager
Union Theological Seminary
3401 Brook Road
Richmond, Virginia 23227
(703) 355-0671, ext. 31

Audiotapes and kinescopes available on exchange or loan and rental, sal or free to schools, libraries, industry, etc. Catalog available at $3.00.

WCWM-FM
Mr. Clifford Pence, Faculty Advisor
College of William and Mary
Williamsburg, Virginia 23185
(703) 229-3000 ext. 275

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WASHINGTON

KCWS-FM
Mr. Roger Reynolds, President
Central Washington State College
Ellensburg, Washington 98926
(509) 963-2311

Maintains a library of audiotapes available on exchange or loan to schools.

WEST VIRGINIA

WVWC-FM
Mr. Donald L. Singleton, Director
West Virginia Wesleyan College
College and Meade
Buckhannon, West Virginia 26201
(304) 472-7030

Maintains a library of audiotapes and videotapes, printed scripts available on exchange or loan to schools, libraries, individuals, etc.

WISCONSIN

WHA-FM
Mr. Ralph Johnson, General Manager
State of Wisconsin
Educational Communications Division
Radio Hall
Madison, Wisconsin 53706
(608) 262-2720

Catalog available.

WSUS-FM
Mr. Albert Croft, Educational Director
Wisconsin State University
2100 Main Street
Stevens Point, Wisconsin 54481
(715) 346-2696

Maintains a library of selected audiotapes available on exchange or loan to schools, libraries, industry and other broadcasting stations.

WSSU-FM
Mr. Richard DeFore, Director of Radio
Wisconsin State University
Superior, Wisconsin 54881
(715) 392-8101

Maintains a library of limited program material available on audiotape. Program guide available on request.

About this catalog

There are about 10,000 programs in WHA-Radio's tape library. Because of limited storage space, not all programs are kept and few are kept for more than one year. Generally, therefore, the programs listed in this catalog fall into the following categories:

1) series currently being broadcast
2) series recently removed from the broadcast schedule
3) series of timeless interest saved for rebroadcast
4) series in the permanent archive collection

We have included both instructional (School of the Air) series and educational adult series which may have instructional uses. Not all of the tapes in WHA's library are listed because not all are permitted duplication. If you have questions about a particular broadcast, write for further information. Programs being produced weekly are available for duplication following the broadcast date. Consult a current Wisconsin School of the Air teacher's manual for this information.

Ours is a duplication service. No loan, audition or rental of tapes is possible. If you are not certain you want a complete series, order a few programs for use and evaluation.

Some of the series listed here are available for broadcast by other educational, noncommercial radio stations. Please contact the Wisconsin School of the Air for broadcast prices and authorization.

Ordering procedures

When ordering an audio tape copy (dubbing) of a program, give the Recording Service the following information.

1. Title of series, number or broadcast year of series, titles of programs, and program numbers.
2. Speed of the recording. We can record at 7½ and 3¾ inches per second reel to reel, and 1 7/8 ips on cassette. No dual or four track recordings reel to reel.
3. Name and address of person to whom the bill should be sent. Name and address of person to whom the tapes should be sent.
4. Number of programs to be recorded on each tape (compute the average length of programs and length of tape at the selected speed).
    15 minute program @ 7½ ips = 600 ft
    30 minute program @ 3¾ ips = 600 ft
    30 minute program @ 7½ ips = 1200 ft
    60 minute program @ 3¾ ips = 1200 ft
    30 minute program on each track = C60 cassette
   (The convenience to the teacher in locating a program on the tape is a factor to consider.)

We recommend that you supply tape with your order. It is more convenient for us, and much cheaper for you. The tape we stock is expensive, low noise, broadcast quality with performance characteristics beyond what is needed for school use. However, tape can be purchased from WHA.

In supplying tape select name-brand, standard play, 1.5 mil tenzar or mylar tape. Reel size can be 5" or 7"; we cannot work with reels smaller than 5". Cassettes should be C60 so that you do not have to interrupt listening to turn over the tape.

The prices quoted include mailing unless you wish first class or special delivery service.

Dubbing fee: $2.70 per program

Tape Prices
1200 foot: $2.80
600 foot: $1.70
C60 cassette: $1.85

EXAMPLE: If you want to purchase WHA tape and record two 15 minute programs per tape at 7½ ips the costs would be $2.80 for a 1200 foot tape plus $2.70 per program dubbing fee or a total of $8.20 for the order.

NOTE: THESE PRICES ARE FOR NON-BROADCAST CLASSROOM USE. RADIO STATIONS MUST CONTACT THE WISCONSIN SCHOOL OF THE AIR FOR BROADCAST PRICES AND AUTHORIZATION.

We have a limited number of teacher's manuals and will provide one with the purchase of a complete series as long as the supply lasts. Please request a manual in your order.

Address orders to Recording Service, WHA-Radio, 821 University Avenue, Madison, Wisconsin 53706.

New World New Lives

(Grades 5-9)

Toward providing background upon which to build more specific knowledge of Latin America and Canada, this series uses fictitious and often amusing characters and situations to illustrate and clarify broad historical concepts. A useful supplement to social studies. Series produced in 1961 Programs are 15 minutes in length.

1. Bienvenidos, Amigos!
2. What's In a Name?
3. Professor Pablo
4. The Place of the Tenochcas
5. The Civilization That Corn Built
6. Thatched Roof, Golden Earplugs
7. Hands That Rocked the Hammocks
8. Iberians
9. Spaniards in Two Parts
10. When One Culture Meets Another
11. One Song, Two Verses
12. With Grace and Gentleness
13. Of Revolutions and Spanish Pans
14. The Missing Keystone
15. Los Caudillos: The Dictators
16. There Is a Difference Between Revolutions
17. The Continuing Revolution
18. The House of the People
19. Revolution in a Valley
20. Brazilian Pioneers—Old Style
21. Brazilian Pioneers—New Style
22. How to Govern a Gaucho
23. Silver, Strangers, and Starvation
24. Neighbors
25. Of Fish and Fur and Fool's Gold
26. Pots and Pans, Plows and Spinning Wheels
27. Birds of Different Feathers
28. A Family Matter
29. Hordes and Swarms and Herds
30. The End

Old Stories and New Ideas

(Grades 4-6)

Hazel Stewart Alberson has a rare ability to relate myths and fables of other worlds and ages to each man's every day. Selections from Greek, Roman and Norse legends, stories from Japan, China, Ireland, and Burma [illegible] vehicles for Mrs. Alberson's modern applications. Karl Schmidt's presentation of these selections is an excellent example of story-telling as an old art form. Teachers have used these programs to motivate further reading, art work, creative writing, and special projects of many kinds. Program length varies from 16 to 25 minutes.

1. Phaeton's Folly
2. Hermes
3. Flood Stories
4. Prometheus
5. Creation of Woman
6. Daedalus and Icarus
7. King Midas
8. The Power of Music
9. Stories for Fun
10. Hospitality
11. White Horses
12. The Soil and the Seasons
13. Thor's Journey to Giantland
14. Contests
15. Odysseus, the Adventurer
16. The Poet as Storyteller
17. Prelude to a Life of Heroism
18. The Light and the Dark
19. Beginnings and Endings
20. The Story Teller's Use of Animals
21. Stars in Your Past and Future
22. Gratitude and Ingratitude
23. Unpredictable Nature
24. Father of His Country
25. Dragons—Friendly and Unfriendly
26. The Elephant's Bathtub
27. Conqueror of All
28. Wisdom in a Nutshell
29. A New Story with an Old Formula
30. Athena and Athens

Reckoning with Boris

(Grade 3)

Boris, President of the Finger Counters of the World, is a funny, stubborn, and dedicated hater of mathematics, who collides humorously with reasonable explanations of addition, subtraction, and multiplication—among other things. With his help, children begin to see mathematics as an entertaining man-invented subject, rather than an abstract, abstruse necessity.

The series is designed to supplement "new math" at third grade level, and is paced to stay a little behind the classroom curriculum. Programs are under 20 minutes in length.

1. Mathematics Before Boris
2. The Value of Place
3. A Fight for Zero and Inequality
4. More Thousands and a Review
5. The Road to Mathematics
6. Boris Begins Adding His Problems
7. Additional Problems With the Ladies
8. Sums, Differences, and Igor
9. Reviewing with Ryegood
10. Some Strange Uses of Mathematics
11. The Matter of Two-Digit Addition
12. The Matter of Two-Digit Subtraction
13. A Very Merry Jack Horner Day
14. Another Addition and Subtraction Matter
15. Some Practical Addition and Subtraction
16. A Calculated Review
17. A New Device: Multiplication
18. Some Important Factors in Multiplication
19. One More Principle and a Few Facts
20. Some Factors and a Horse
21. Some Very Practical Multiplication

A SAMPLING OF TEACHERS' PERSPECTIVES ON LISTENING

by

JIM FLEMING

Recently I polled a group of educators in an off-campus class with six questions on listening. They ranged from reading consultants, L.D. teachers, physical educators, to regular elementary classroom teachers. The following six questions were read orally to the group, without any discussion on listening, and with participants writing their responses.

1. Define "listening?"
2. What percentage of time do you spend teaching that involves listening in your class?
3. Do you teach listening in formal presentations in your classes?
4. Would you equate listening skills with I.Q.? Yes No
5. Would you equate listening skills with Reading? Yes No
6. What auditory learning materials have you used recently with your classes? equipment? commercial programs? to teach what?

Although the "N" was small (31), the responses do indicate needs, misconceptions, and awareness of listening and auditory learning. Perhaps one might wish to use these questions to sample other educator populations.

In reviewing the responses made to the six questions, I found the following:

Question #1 - "define listening"

The majority (17 of 33) of the respondents defined listening as
(a) attending to auditory stimuli
(b) attending and comprehending the spoken word
(c) receiving and understanding information
Responses not categorized in the above three definitions varied from
"...the ability to hear"
"auditory reception attention"
"...receiving and recording facts..."
"auditory reception which is channeled to the brain"
"...ability to learn using the auditory sense"
This sample seems to reinforce what those people who have advocated the teaching of listening have been saying--educators too often limit the role of listening to just "paying attention" or "receiving information and understanding it".

Question #2 - "...percentage of your teaching involves listening by the learner...?"

A range of 15% to 95% was reported with the speech therapist's reporting at the 90 and 95 percentile.

	Listening Time
61% (19 of 31)	50-80%
19% (6 of 31)	15-33 1/3%
13% (4 of 31)	85% or more

Only one respondent was unable to estimate the percentage of time, while another wrote the comment "70% - should be 15%".

It does appear that the teachers do in fact out-talk the learner and are unaware of its importance in the classroom. Dr. Steven Corey, in a study of high school classes in 1940, reported teachers talking with students listening ranging from 45% to 80% of the class time in Science, History, and English classes. He further pointed out "...in terms of averages, the chances were about sixty to one that the teacher of a class rather than a particular pupil would be talking at any one time, and two to one that teachers, rather than pupils, would be talking." Wilt, in her 1949 dissertation - "A Study of Teacher Awareness of Listening as a Factor in Elementary Education," reports the following:

(1) Seventy percent of teachers surveyed (N=1452) considered reading, speaking, and writing more important than listening.
(2) Observations of classrooms found the "supposed to be listening" time to be 57.5%.
(3) Teachers surveyed by a questionnaire had reported less than 28% of the school time involved listening.
(4) "If these findings are representative, then approximately 89% of the children in the nations schools are expected to learn through listening more than 50% of the classroom time."

Question #3 - "...do you teach listening?"

Seventy-seven percent of respondents reported they do teach listening in their classes. Comments added to the questionnaire stated "at the beginning of the year," "used activities that dealt with following directions," and one person indicated that a commercial listening program was used in their school system.

Do teachers continue, throughout the school year and up through the grades to teach listening? Can we get teachers to think of listening as more than just following directions?

Question #4 - "...equate listening with I.Q.?"

Responses to this question indicated a split decision or 52% (16 of 31) said "yes" and 48% (15 of 31) indicated they do not equate listening with I.Q.

Question #5 - "...equate listening with reading ability?"

Eighty-seven percent of the group (N=27) surveyed indicated "yes"--they do equate listening abilities with reading ability.

Although research is still limited in the area of listening and auditory learning, it does indicate listening is related to intelligence, but not necessarily equal if adjustments and/or modifications are made for the specific learner. There is at present no strong supportive evidence that equates listening ability level to reading level ability. There is evidence, however, that listening ability does deteriorate as reading level increases through the grades.

Question #6 - "...auditory learning materials and media used recently to teach what?"

Tape recorders and language matters (audio-flashcard readers) were the two most commonly mentioned audio equipment items. A variety of commercial materials were reported, but they were generally used to build or teach auditory discrimination, memory, phonetic skills and following directions. Many teachers indicated they used their teacher-made tapes and flash-cards prepared by themselves.

This question seems to indicate several basic factors involving teaching materials via the auditory channel:

(1) Teachers are either unaware of or limit the role of auditory learning in their classrooms.

(2) Teachers find that many existing materials are unsatisfactory, cost too much, or are unavailable.

(3) Teachers report there is a lack of materials for their specific needs.

The survey does support many of our ideas and our goals this year. A teacher orientation to the vastness of auditory learning is a needed target project. We need not only add to existing materials and classify existing materials, but also to create and/or adapt new materials for a channel of learning too often ignored.

It might prove rewarding and/or beneficial if one could survey larger groups of educators on a pre and post basis to find out if one can effect change and wider acceptance to auditory learning as a major input or advantaged instruction system.

A POSTSCRIPT SAMPLING OF TEACHERS' PERSPECTIVES ON LISTENING*

by

JIM FLEMING

A second off-campus class of educators were asked the identical questions as found in the survey report of October 28, 1973. This group was composed of regular and special education teachers and consultants. Their responses were found to be rather closely aligned with group I's.

Question #1 - "define listening"

Definitions of listening by this group were as similar with terms such as, "concentrating","decoding", "attending", "hearing", "being aware of", and "effective use of aural systems" used more frequently. Auditory symbols or sounds was referred to or used in most definitions. One teacher defined listening as "being aware - caring - and feeling for others - to truly hear and feel what is said." This is how she approaches teaching listening in a 4th grade classroom for learning disabilities.

Question #2 - "...percentage of your teaching involves listening by the learner..."

The reported range of 10% to 85% of classtime was as extreme as Group I's 15% to 95%. This group indicated the following results:

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*See "A Sampling of Teacher's Perspectives on Listening" Media and Materials Development Unit report of 10/28/73.

	Class time
47% (9 of 19)	50-80%*
15% (3 of 19)	85% or more
36% (7 of 19)	under 50% (10% to 30%)

Sixty-two percent of this group indicated half or more of their class time involves listening. This is very close to the findings of Wilt, 1949,who observed a sampling of classes and found the average to be 57.5%.

Question #3 - "...do you teach listening?"

Fifty-five percent of this group reported they do teach listening, as compared with 77% reported by the Group I survey. Qualification statements and later statements of the survey cards do, however, indicate they are teaching very basic parts of listening (discrimination, matching, and classification). Thirty percent of the group indicated they do not teach listening and 15% indicated sometimes.

Question #4 - "...equate listening with I.Q.?"

A split decision was found again with 55% indicating "No" and 45% indicating "Yes" they do equate listening with I.Q. Group I findings were similar (48% reported "No" - 52% reported "Yes").

Question #5 - "...equate listening with reading ability?"

A clear majority 95% (19 of 20) do equate listening ability with reading ability. How they would explain a young child's acquisition of language, nursery rhymes, the retarded's memory for pop songs, etc. would be interesting to pursue.

Question #6 - "...auditory learning materials and media used..."

Again many indicated a wide variety of materials, more commercial programs indicated, with the record player, tape recorder, and language master mentioned frequently.

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* One class member was not presently employed in education.

RESULTS OF SITE VISIT TO
WAVERLY LEARNING CENTER

by

DAVE BROSKI
JIM FLEMING
MARSHA SMITH

Teachers needs and evaluative comments in regard to auditory learning (auding) materials provides guideposts and the impetus to review and research focal points. Auditory learning is virtually an untapped resource that often goes unrecognized in many educational systems. Simple logic and research indicates that one could use this learning channel to promote the cognition, psycho-motor, and affective domains. This is "advantaged instruction" and should not be confused with remedial or supplemental instruction.

One needs to take a global review of teachers' reported needs to auditory learning and specifically to subject or content area along with a description of the learner. These dimensions can provide focal points for material development, modifications and review of existing materials. Teacher needs in this area are not confined to materials or programs alone. Procedures for technical assistance or acquistion of specific hardware equipment, media resources, and guidelines for handling equipment are still another request area.

We can place material needs for auditory learning within the categorical areas of special education. The needs for children found in TMR programs differ widely from those in L.D. programs, visually impaired, or within the regular classroom. This is not to say that any materials developed or modified should be used exclusively with only the original group. The materials are to be researched for effectiveness as advantaged instruction by various style or impaired learners.

* * * * *

A recent visit to the Waverly Learning Center produced a series of concrete suggestions for developmental activities by the Media - Materials Unit. Learning Center Staff recommendations will be discussed under three sub-headings: (1) content areas, (2) material formats, and (3) equipment.

CONTENT AREAS

Two distinct units are in operation at the Center: (1) a Trainable unit and (2) a Learning Disabled unit. Suggestions were taken from each.

Trainable Unit The following content areas seemed to be most consistently of concern:

(1) Self-care - dressing, undressing, hygiene

(2) Self-control - respect for others, adjusting to schedules, waiting in turn

(3) Foods - eating habits and procedures in the cafeteria, trying different foods, use of menus from the cafeteria as stimulus

(4) Safety - household dangers, poisons, street and environmental safety

(5) Names - differentiating first and last names

(6) Classification - ability to order, group, or sequence by: size, shape, color, where found, use, when, how, and why. Classification exercises to range from manipulative objects to familiar household goods.

(7) Following directions

Learning Disabled The following content concerns were covered:

(1) Spelling demons - differentiating between words such as THOUGH and THROUGH

(2) Social Studies

(3) Science

(4) Language Arts - reading comprehension, vocabulary building

(5) Following directions

FORMATS

Formatting specific content concerns were discussed during the visit. Suggestions and ideas mentioned are documented in this section.

(1) Ideal word building tapes - existing cassette tapes require learners to perform activities with paper and pencil. Academic levels of learners using the tapes vary, causing problems in individualizing to rates of acquisition. If was suggested that three of these tapes be expanded 25% and three compressed 25% to accommodate these differences. This has been completed and awaits field-testing.

(2) Consideration is being given to developing units using the Language Master or a compatible unit such as the Audiotronus Tutorette. The Learning Center recently purchased the latter and the staff there is eager to put it to use. The following format ideas based on this piece of equipment were drawn:

(a) Labeling Sounds - Cards with sounds of a particular grouping, such as animal sounds, household sounds, outdoor sounds, etc. might be presented followed by its name. The Cards developed could be used to build vocabulary, to organize into groups of a common nature, or to act as a stimulus for questions such as: Where would we find these sounds? What do they represent? How do we use the objects they represent in our daily lives? Can you put these sounds into a story?

(b) Language Master cards could contain directions to follow in a Treasure Hunt. For example, the first card played gives the directions to a child for finding the second card, and so on. This might be used in developing the ability to follow directions. If the directions were quite specific in terms of the number of steps to take in a certain direction to find the next card, they might be used in mobility training for the blind.

(c) Language Master cards might contain specific instructions for participation in a game or other structured activity.

(d) Spelling demons might be presented on the card, spelled to the student, and used in an appropriate context to illustrate its meaning.

(3) Music - The center has a collection of records for classroom use. There were, however, some suggested modifications for the Trainable Unit. For example, if the recordings were transcribed to cassette, a pulse causing the tape to stop could be added when the recording calls for the child to perform some act. This would give children more time to follow the directions given.

EQUIPMENT CONCERNS

The staff at the Learning Center related some concerns relating specifically to equipment.

(1) Number of listeners per recorder - It was felt that a significant distraction was caused when a child or a small group of children were listening to a tape. We have on order a "listening post" arrangement for our field-testing. This will allow us to equip from one to eight listeners with headphones, out of a single playback unit.

(2) Headsets - Existing headsets at the Center are equipped with standard phone plugs and, therefore, not compatible with the cassette playback units they are using. We suggested they purchase some adaptors to convert the phone plugs to phono.

(3) Some children in the Trainable Unit are not verbalizing with either the teachers or the other students. It is possible to put a speaker in a stuffed animal and/or accompany it with a voice activated microphone to present material and record responses.

(4) Another possible equipment modification might involve a telephone. The receiver unit might present information and the mouthpiece might record responses.

(5) The Lexicon speech compressor is now being connected to the strip-chart recorder. This will provide us with some date regarding listening rate preferences of children.

* * * * *

In summary, the site-visits to education programs provided input to this unit regarding content areas, format ideas and concerns regarding equipment. It provided first-hand input from teachers that is transferable in terms of the advantaged Auditory Learning Project.

In the terms of our proposal, the Site experience generated several target areas for possible (feasible) materials development, modification, and/or evaluation. Upon referring to Carlson's diagramatic representation of Learner Levels (stages) one finds specific needs for focus at particular stages.

It would appear that at Stage I the focus of impetus for materials will be self-help, self-discovery and environmental discovery, as has been explained in this paper. At Stage II one finds a broader need that encompasses the usual curricular areas such as Spelling and Math. Stage III has yet to be fully explored and provides a target for the Materials Development Unit for site visitations and questions and answer sessions with teachers.

The affective domain, although not a primary concern at all sites, was expressed. It is receiving play in the education field by many manufacturers and teachers of regular class students but was not of consistent importance with the school teachers with whom the Media and Materials development Unit spoke.

Ideas generated by the Media and Materials Development Unit staff regarding materials modification (i.e. button box, compressed speech and adapting of language master card, etc.) appear to be in line with and of interest to classroom teachers' needs.

SECTION TWO

THE DEVELOPMENT AND MODIFICATION OF AUDITORY INSTRUCTIONAL MATERIALS

OVERVIEW

Once the universe of available auditory instructional materials was surveyed and teachers' needs were expressed and determined, available materials were modified and new materials were developed. Section Two provides a look at this endeavor. First, a brief position statement of the developmental focus with a specific audience is given. Second, examples of ideas for new materials are presented. Third, a design guide generated by the staff indicates developmental procedures. Fourth, examples of user guides to accompany listening materials are presented as tangible products.

AUDITORY LEARNING AND LEARNING DISABILITIES

by

JAMES W. FLEMING
S. JOSEPH LEVINE

The use of auditory instructional materials has large potential with the population of children who have learning disabilities. Within this population, the largest percentage are reported to have reading problems and/or visual motor difficulties. Auditory instructional materials can provide a viable form of input to these learners.

Little specific research has been conducted regarding alternate forms of auditory presentation that may benefit different types of learning disabled children. The use of compressed and/or expanded speech may prove helpful to the easily distracted child. The reluctant or withdrawn child may benefit from "private" listening experiences. For the anxious child, the use of student-paced material with built-in feedback or equipment that will record the student's voice along with that on the tape may prove reassuring.

The area of learning disabilities is just beginning to utilize a fairly large amount of auditory learning materials to assist in instruction. In the very near future there will be a growing need for the creation of specific auditory learning materials for identified learning disabled children and also the training of teachers in the design and use of these materials. From all indications we are moving rapidly in the direction of increased instruction through the auditory modality and it would seem that many learning disabled children will benefit from this increased emphasis.

January 1974

IDEA FOR NEW MATERIAL

by

S. JOSEPH LEVINE

A unique nonverbal auditory material could be built around an audio flashcard system. The material would utilize a card (audio flashcard) with magnetic recording strips at both edges (top and bottom) of the card. The front of the card would key in some manner to allow the learner to know which side to place in the machine first. He would also be instructed to push button number one to get his beginning instructions.

Upon pushing button number one he would receive a nonverbal stimulus (i.e., a person laughing, crying, shouting, etc.). The other three buttons would present sounds in context. (i.e., the sounds of a supermarket, the sounds of traffic in a large city, the sounds of a party, etc.) The learner would listen to each of the last three buttons and decide which context sound included the stimulus sounds. He would then make his decision, take the card out, turn it over, and reinsert it in the machine, and push the button that he felt provided the sound in context. If correct, he will again hear the sound in isolation.

The unit would obviously teach auditory discrimination, but it could also be used to teach association of feelings with context. The real problem in the development of such material would be the procedure for assessment of learning. Without saying, the assessment procedure would have to be a nonverbal procedure.

The cards for such a material could be constructed for field testing by merely cutting two cards in half, salvaging each half with the recorded segment, and taping them together.

October 9, 1973

IDEA FILE:

IDEA FOR MATERIAL MODIFICATION

by

MARSHA C. SMITH

Many materials recorded are, according to teachers who are presently using them, too fast moving for the trainable child. It is a fact that young children (young either chronologically or by mental age) enjoy and learn from repetition. Another factor in the teaching of young children is their ability to relate to concrete objects. With these things in mind, an idea for the modification of children's songs, already in use and generally enjoyed by teachers and children alike, to make it more useful in the context of the actual learning experience, has been generated.

The hypothesis is:

1) Given the children's song in its present form, although interesting and enjoyable to listen to by the children, it will be hard for them to relate to or to keep up with in both learning concept and in active participation.

2) With the modifications made as described below, it is hypothesized that

   a) the children will be more easily able to participate in the action pantomime or other directions (with less teacher direction) and

   b) will have gained in the general knowledge and objectives (concept development) as put forth by the material itself.

The subject matter (Self-Care) and the general level for which this idea was generated was taken from general conversation with teachers of trainable retardates at the Waverly Learning Center.

The modification of a single lesson might look something like this:

Song - (as now recorded) for listening only

Narration - brief instructions for following segment

Song - for use with concrete objects or manipulative activity not necessarily in time with musical accompaniment

Narration - brief instructions to "do as the song tells you to"

Song - at expanded rate with time allotted for child to carry out the directed activity. This might be facilitated by the use of an automatic "stop" (Red Button machine?) and the tape to be restarted when the child is ready.

Lesson may be stopped at this point....

Narration - briefly telling child to listen again and do what the song says

Song - this time at regular speed again for child to interact at faster speed

An example of a practical application follows:

Song: "What are you wearing?"

Lyrics: "If you're wearing a dress, Stand up."
"If you're wearing a dress, Stand up."

First exposure - Listen

Second exposure - as per instruction, handle appropriate doll's clothes or, on a more visual but not so concrete note, point to appropriate visual image (such as Peabody Cards) of a dress.

Third exposure - Listen to EXPANDED song having them DO as they are directed. With "stop" they begin again when all those wearing dresses have stood up.

Fourth exposure - (if desired) - When children are ready, play the song through at regular speed and see how children are (hopefully) better able to identify clothing and keep pace with activities on recording.

In this form the child would be exposed to the song four times per lesson and asked to participate at four different levels. (1) listen, 2) concrete activity, 3) slowly participating, and 4) participating at regular speed)

At the trainable level, the objective of such an activity might be following directions, or identifying clothing or both. Pre/Post evaluation of content area could be made possible while ability to attend and follow directions would be observable. Perhaps thinking along the lines of regular speed at shorter intervals might also be explored in the effort to modify such a material.

This is just a "rough" of an idea...suggestions, criticisms and general modifications of this modification accepted.

November 8, 1973

AUDIO JIGSAW PUZZLES

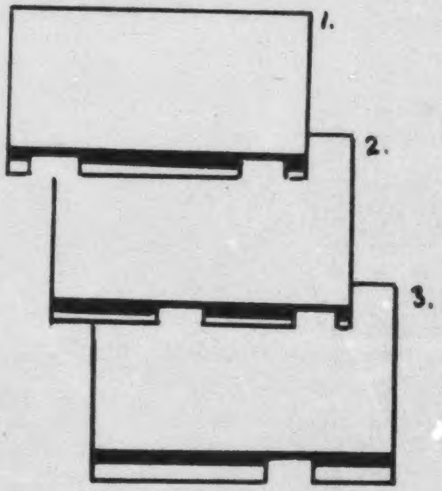
by

S. JOSEPH LEVINE

All of the available audio flashcard materials contain some amount of visual material. A picture, word, diagram, etc. is printed on the upper part of the card. This visual material is usually used as a stimulus (presentation of information) and the auditory portion of the card is used for either clarification, reinforcement, or feedback. No existing audio flashcards are produced without this visual component.

The design of an Audio Jigsaw Puzzle is built around the premise that both stimulus and feedback can be created on the audio portion of an audio flashcard.

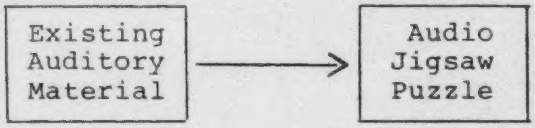
An Audio Jigsaw Puzzle consists of two or more audio flashcards designed for the EFI four track configuration. It is suggested that no more than four cards be used to make up the puzzle. Each card has a one inch notch cut from the bottom of the card. The notch extends to the second track of information thereby leaving the first track intact. The configuration of notches for a three-part puzzle are shown below.



It should be noted that each card has a single randomly placed notch and cards #1 and #2 also have a second notch which is in common with each other. This placement of notches allows for organizing the puzzle in six different arrangements for use (all possible combinations).

The Audio Jigsaw Puzzle format is seen as an interactive procedure to be used to supplement an existing auditory material. Its prime use would be to reinforce specific aspects of the existing auditory material. As such, it would provide a viable procedure for modifying a learning experience to enhance learning without the necessity of modifying the existing material.

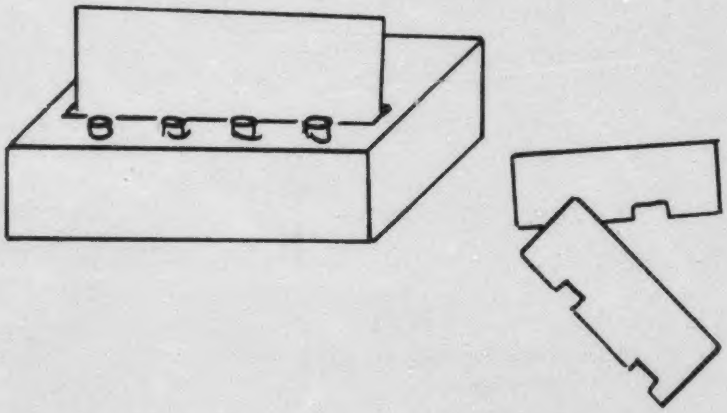
INSTRUCTIONAL SETTING



The Audio Jigsaw Puzzle would be designed to underscore the main points developed in the existing auditory material. Further, it would utilize an entirely auditory format, rather than audio/visual or visual, to do this.

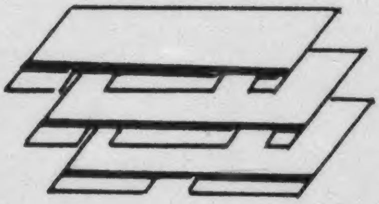
The Audio Jigsaw Puzzle is used optimally for information that must go in a specified order or sequence. In use, the learner would listen to the stimulus on each individual card. Then, sequentially order the cards in a stack based on the information found on each card. Finally, he would insert the entire stack in the card reader. If correct, he would hear a complete message. If incorrect, the message would have gaps.

1.

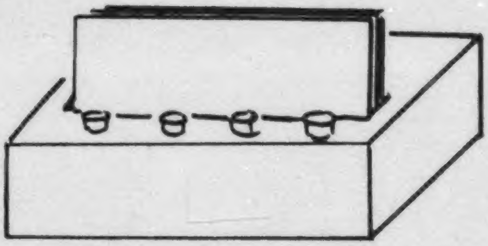


Listen to each individual card

2.



Order cards in stack

3. 

Put entire stack
in card reader

To record an Audio Jigsaw Puzzle, the teacher would first put the stack in the card reader (in any arrangement) and record the feedback track (track 3 or 4). Then, each individual card, in order, would have a single stimulus recorded on track 1.

Such a material as the Audio Jigsaw Puzzle has a number of distinct features which make it practical for use in instruction.

-- a manipulative activity whereby the student is physically involved in the instructional process.

-- a simple procedure for both teacher preparation and learner use.

-- an "add on" material that can be created to accompany any existing material.

-- it would reinforce selected concepts and hence serve to highlight the primary aspects covered in an existing material.

-- would not be dependent upon a visual component. (Though, a visual component could be added without altering the concept.)

November 5, 1973

AUDITORY INSTRUCTIONAL MATERIALS DESIGN GUIDE

by

S. JOSEPH LEVINE

This Design Guide is an attempt to describe a number of different formats for the design and development of tape recorded auditory instructional materials. No attempt has been made to include every possible format. Instead, a selected group of formats have been described which:

a) indicate potential for use with handicapped learners who learn best through the auditory channel,

b) do not necessitate any print or visual material,

c) provide an expressive opportunity for the listener,

d) can be used to support existing instructional programs, and

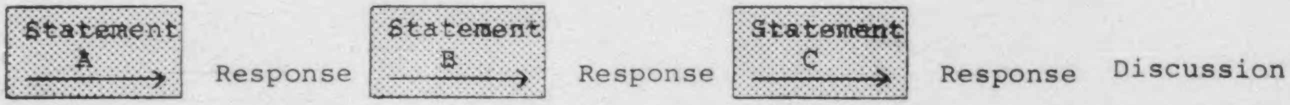
e) are not readily available in tape recorded form for present use with these learners.

Each format is described in a very brief paragraph. Following the paragraph is a schematic representation of the material and its use. For the schematic representation, the shaded area ▨ denotes the part of the instructional experience that is provided by the tape recording.

- -

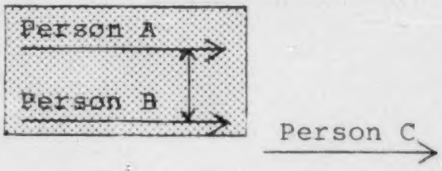
FOCUS: Eliciting feelings, awareness of people and things.

DESCRIPTION: A series of simple statements are presented to the listener without including the resolutions to the statements, (i.e., "Sometimes when I wake up in the morning I really feel like going to ___.") The entire series evolves about a central theme. (Community Helpers, Going to the Zoo, Feeling Happy, etc.) The listener responds to complete the statement. The central theme is discussed at the conclusion of the series.



FOCUS: Responding to situations.

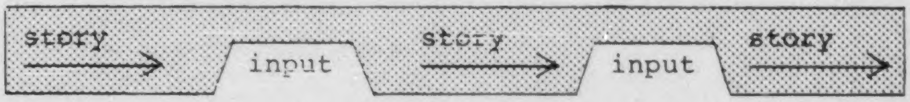
DESCRIPTION: An audio recording is provided that presents two children arguing (discussing, talking, etc.). At a certain point in the argument, a third person is introduced on the tape and asked to help resolve the argument. ("Wait a minute, here comes someone that can help us. What do you think?") The listener is asked to play the role of this third person and respond to the situation.



- -

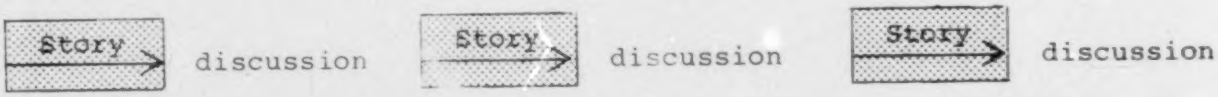
FOCUS: Personalizing a recorded story, forced responding.

DESCRIPTION: An audio story is presented to the listener. At periodic points in the story, there are pauses where the listener inserts some content appropriate to his own background, experience, or desires. (i.e., "One day I was walking down the street, and I saw a big and ugly _____ that was sleeping under a light post. As I got closer I heard him saying in his sleep _____________." etc.)



FOCUS: Awareness of feelings, people, or things

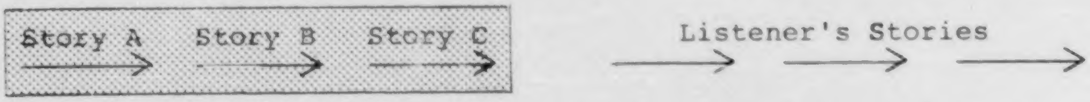
DESCRIPTION: A detective format is used for a recorded presentation. Throughout the presentation the detective uncovers clues that provide information to the listener about the identity of what is being searched for. Periodically the recording is stopped and the listeners discuss what they have learned about the mystery and make guesses about the identity of the unknown. The unknown can either be a concept, value, idea (i.e., love, understanding, friendship, etc.), or a person or thing. The discussion can also focus on how you can find out information through systematic procedures.



- -

FOCUS: Stimulating story telling.

DESCRIPTION: The listeners are presented with a set (2 or 3) of short stories. All of the stories evolve about a central theme that is presented to the listeners prior to the listening experience (i.e., sad stories, stories about a friend, unusual stories, stories about animals, etc.) At the conclusion of the recorded stories, the listeners are asked to tell their own stories. Their stories should be on the same theme.



FOCUS: Understanding other people.

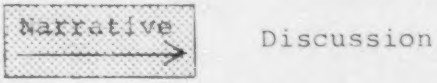
DESCRIPTION: The listeners are presented with a narrative about a person. The narrative describes some actions of the person in different situations. Following the narrative, the listeners are asked a set of structured questions like:

"What does this person look like?"

"How would this person respond to this situation _________?"

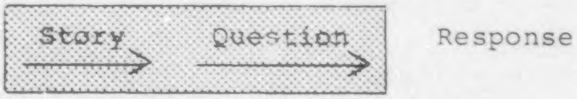
"What are this person's friends like?"

etc.



FOCUS: Understanding other people.

DESCRIPTION: A situation is presented to the listener either through a "radio-drama" format or a story telling narrative. At the conclusion of the situation, the listener is asked to tell how a specified person "would" or "should" respond. (i.e., "What would a policeman do if he came upon this situation?" or "What should your mother say to the little boy?" etc.)



FOCUS: Observing behaviors.

DESCRIPTION: An audio recording is provided that presents two or more people in a conversation (debate, argument, etc.). At a key point in the conversation, the tape is stopped and the listener is asked to hypothesize what will happen next. The listener is further probed regarding how he developed his hypothesis ("Why do you think that?" "What did you hear that helped you make that decision?" "What else could happen based on the behaviors you have noted?" etc.). Finally, the tape is restarted and the incident is resolved.

Person A
Person B
Discussion
Person A
Person B

- -

FOCUS: Feelings about other people.

DESCRIPTION: An audio story is presented that uses a "unique" voice within the story. (i.e., speech defect, inner-city slang, foreign dialect, inappropriate verbal expressive affect, etc.). The discussion following the playing of the recording begins by focusing on the story and then gradually shifting to a discussion of the person with the "unique" voice. "What kind of feelings do you have about the person?" "What does the person look like?" "Have you ever met a person like that?" etc.

Discussion

USER GUIDE

"THE VELVETEEN RABBIT" - PART I

The Velveteen Rabbit, by Margery Williams, is a dramatized story in four parts. This part may be used in isolation or the entire sequence may be played at one sitting. No part exceeds ten minutes in length.

GOALS:

For students to:

--appreciate the value of loving and being loved.

--appreciate the notion that physical appearance is not all important.

STORY OUTLINE:

The velveteen rabbit is found in the Boy's stocking on Christmas morning.

The velveteen rabbit feels inferior to the more expensive and elaborate toys.

The velveteen rabbit receives the counsel of the wise old Skin Horse.

The rabbit learns what it means to be REAL.

The rabbit is loved by the Boy and becomes REAL to him.

PROCEDURE:

1. INTRODUCTION - before playing the tape, say to the class:

   "This is a story about a Christmas present a little boy received. Let's listen to the story. After we listen, we'll talk about it."

2. Play the tape. Observe reactions from the children. (See TEACHER EVALUATION FORM)

3. Discuss the tape. (See DISCUSSION HINTS)

4. EVALUATION - at the conclusion of the experience, check the appropriate blanks on the short TEACHER EVALUATION FORM that is included.

DISCUSSION HINTS

1. What is this story about?

   The primary focus is that being loved is more important than physical appearance.

2. What did the Skin Horse tell the Velveteen Rabbit?

   The Skin Horse told the Rabbit that being loved by a child is what helps you to become REAL. Once you are loved, your physical appearance no longer matters.

3. The Velveteen Rabbit wanted to become REAL, yet he didn't want to become shabby too. Which do you think is more important?

   See how the students view the situation. Is being loved worth making sacrifices?

4. Can you think of anything that has happened to you that is like this story?

TEACHER EVALUATION FORM

How attentive were the students during the tape? (circle the appropriate number)

Very Attentive		Somewhat Attentive		Not Attentive
5	4	3	2	1

How did the students respond to the discussion at the conclusion of the tape?

Very well		OK		Not Well
5	4	3	2	1

Do you think the students enjoyed the tape?

A lot		Somewhat		Not at all
5	4	3	2	1

How would you rate the tape?

Very worthwhile		OK		Not worthwhile
5	4	3	2	1

Comments:

USER GUIDE

"SOMETIMES I FEEL LIKE"

"Sometimes I Feel Like" is a musical presentation in sing-along style expressing thoughts and feelings. Children are covertly encouraged to participate and sing along. Recording was made before a live audience.

OBJECTIVES:

For students to:

--express their feelings.

--understand that others have similar feelings to theirs.

FEELINGS EXPRESSED:

The feelings presented both by Mr. Medema and the children are the following:

Sometimes I Feel...

--like saying how I feel

--like being all alone

--as happy as a lark

--like fooling around

--like singing a song

--a little bit sad

--I'm different from anyone else

--I'm glad I'm alive

PROCEDURE:

1. Begin by introducing the tape and describing what the children will be doing during the playing. (see INTRODUCTION HINTS)

2. Play the tape. You will want to sing along with the recording to model for the students what is expected of them. It will be evidence when you are expected to participate.

3. Discuss the tape. (see DISCUSSION HINTS)

EVALUATION:

At the conclusion of the experience, check the appropriate blanks on the short Teacher Evaluation Form that is included.

"SOMETIMES I FEEL LIKE"
USER GUIDE (Continued)

INTRODUCTION HINTS

Before playing the tape, say to the class:

> "This is a tape of a new song we will want to learn. During the tape you will want to sing along at different times. After we listen to the tape, we'll talk about the new song."

Begin the tape.

DISCUSSION HINTS

What is this song about?

> The focus is expressing feelings we have and that we all have similar kinds of feelings at one time or another.

Can you remember any of the feelings we sang about?

> Being all alone, happy as a lark, fooling around, singing a song, a little bit sad, different from anyone else, glad I'm alive.

Can you think of another feeling we might have sung about?

> crying, smiling, hitting, kissing, loving, etc.

Can you think of some way you particularly feel sometimes?

Do you think that other people feel that way to?

Follow-up Suggestions:

--have children illustrate a feeling they have sometimes.

--write a story about a person and a feeling and what he does about it.

--role-playing--without words have individuals or pairs play out a feeling. Have others guess how he feels and possibly why. You can assign specific feelings or let the children choose one.

--Using the same tune improvise the song in your own classroom.

USER GUIDE (Continued)

TEACHER EVALUATION FORM

How attentive were the students during the tape? (circle the appropriate number)

Very Attentive		Somewhat Attentive		Not Attentive
5	4	3	2	1

Did the students sing along with the tape when instructed to?

Yes		Somewhat		No
5	4	3	2	1

How did the students respond to the discussion at the conclusion of the tape?

Very well		OK		Not well
5	4	3	2	1

Do you think the students enjoyed the tape?

A lot		Somewhat		Not at all
5	4	3	2	1

How would you rate the tape?

Very worthwhile		OK		Not worthwhile
5	4	3	2	1

Comments:

USER GUIDE

LINCOLN'S ASSASSINATION

STORY OUTLINE:

This is an historical reenactment of the events surrounding Abraham Lincoln's assassination and the subsequent search for John Wilkes Booth. The format is similar to a news reporting broadcast.

OBJECTIVES:

For students to:

--develop an appreciation for history through a simulated, "you are there" format.

--understand the events surrounding this momentous historical occasion.

PROCEDURE:

1. Begin by explaining the purpose of the tape, cautioning the student to listen carefully.
2. During the pre-test, if more time is required to give a response, stop the recorder.
3. Play the tape.

PRE AND POST TEST ITEMS

True or False

F - 1. President Lincoln was shot while addressing a victory celebration outside Ford's Theater.

T - 2. John Wilkes Booth, the president's assassin, injured his leg when he leaped from the presidential box.

T - 3. President Lincoln suffered a fatal gunshot wound in the head.

T - 4. Sergeant Boston Corbett said he shot Booth in self-defense.

T - 5. At the time he was elected to the Presidency, Lincoln was a lawyer in Springfield, Illinois.

DISCUSSION QUESTIONS

1. If you could listen to another tape about history, what would you like it to be about?

2. Why do you think John Wilkes Booth killed President Lincoln?

3. If you must learn about history, what ways would you like to learn about it?

USER GUIDE

"GORGOLS"

"Gorgols" is a musical story that structures interaction within the classroom by having the students participate by "singing along" at various points in the story.

OBJECTIVES:

For students to:

--participate in an interactive group situation.

--express their feelings of love and liking others.

STORY OUTLINE:

Information - who is Gorgols.
(an ugly animal with a body of a turtle and a head of a person)

Gorgols is found by a girl.
(the girl likes Gorgols)

Gorgols is brought home by the girl.
(the girl is sure it will be okay)

The girl's parents send Gorgols away.
(he is too ugly)

The girl runs away from home.
(she wants to be with Gorgols)

The girl is afraid of the dark.
(wants to be home)

The parents "rescue" the girl and Gorgols.
(they'll let Gorgols live at home)

Everyone gets to like Gorgols.

Gorgols is really a little boy.
(his shell disappears through love)

PROCEDURE:

1. Begin by introducing the tape and describing what the students will be doing during the playing. (see INTRODUCTION HINTS)
2. Play the tape. You will want to participate along with the recording to model to the students what is expected of them. The tape will indicate when to participate.
3. Discuss the tape. (see DISCUSSION HINTS)

EVALUATION:

At the conclusion of the experience, check the appropriate blanks on the short Teacher Evaluation Form that is included.

"GORGOLS"
USER GUIDE (Continued)

INTRODUCTION HINTS

Before playing the tape, say to the class:

"This is a musical story about an ugly animal named Gorgols. During the story we will all have a chance to sing at different times. Let's listen to the story. After we finish listening, we'll talk about the story."

Begin the tape.

DISCUSSION HINTS

What is this story about?

The primary focus is "love" and expressing love to someone else.

Who is Gorgols?

Gorgols is a little boy. Probe the group further if they still view him as an ugly animal. ("Who is Gorgols now?)

Why did the girl run away from home?

She wanted to express concern for Gorgols.

Was the girl right in running away from home? Why?

This is open-ended. See how the students view the situation. You may want to probe further. ("Is there a time when it is right to run away from home?" "What can you do instead of running away from home?")

Can you think of anything that has happened to you that is like this story?

"GORGOLS"
USER GUIDE (Continued)

TEACHER EVALUATION FORM

How attentive were the students during the tape?
(circle the appropriate number)

Very Attentive		Somewhat Attentive		Not Attentive
5	4	3	2	1

Did the students sing along with the tape when instructed to?

Yes		Somewhat		No
5	4	3	2	1

How did the students respond to the discussion at the conclusion of the tape?

Very well		OK		Not well
5	4	3	2	1

Do you think the students enjoyed the tape?

A lot		Somewhat		Not at all
5	4	3	2	1

How would you rate the tape?

Very worthwhile		OK		Not worthwhile
5	4	3	2	1

Comments

USER GUIDE

FINNEGELWYK VISITS THE EARTH

STORY:

To determine if the planet Earth is ready to join an Interplanetary Galaxy, a team headed by Finnegelwyk is sent to the Earth and meets an Earth man, Mr. Green, who takes them on a tour. Ecological and environmental aspects of food, health, spatial freedom, pollution, etc. are discussed in an interesting and humorous format.

OBJECTIVES:

For students to:

--understand how an ecological look at our earth might appear to an outsider.

--identify a few sources of ecological problems.

PROCEDURE:

A. Begin by explaining that the student(s) are about to hear a tape about what might be found on our planet. At the beginning of the tape they will be told to listen so that they can answer some questions at the end.

B. Play the tape. Sometimes a student may interrupt during the recording. If this happens, stop the tape. Encourage the student to listen until the end when it will be appropriate for him to respond.

(NOTE: record the instances of laughter or when the student smiled, appropriate or inappropriate.)

C. After the story is over, the questions will be asked again. This time the students will be asked to respond. The tape will stop after each question for student responses. Listen to and record the student's response to the questions. The student can push the button to restart the recorder when he is ready to answer the next question. It is not necessary to restart the tape after the answer to the fourth question.

D. After the student has responded to all the questions on the tape, discuss the following questions.

--What interested you about the tape? (or what did you like about the story?)

--What were the sad things about the story?

--What were the funny things?

--Rate the tape, i.e., what did you think of the tape? (Give ☺ rating scale.)

FINNEGELWYK VISITS THE EARTH
USER GUIDE (Continued)

THE QUESTIONS AND SOME POSSIBLE ANSWERS ARE:

1. Why did Finnegelwyk visit the earth?

   --to find out enough about the planet to decide if Earth should be included in the Council.

   --to see what it was like.

   --to see how people lived.

2. What did Finnegelwyk think about the food earth people eat?

   --that it is non-nutritional and could be dangerous to health.

   --that we eat too much of the wrong kind.

   --makes people fat.

   --we eat too much sweets.

   --has terrible taste (coffee).

   --thought it was strange, tasted funny.

3. Mr. Green mentioned some reasons people live in cities. What were the reasons?

   --convenience, all "necessities" are reasonably close at hand.

   --close to jobs and stores.

   --living in country too hard.

   --that's where everybody lives.

4. What are some of the causes of air pollution?

   --factories, cars, cigarettes, power plants

   --smog, gases,

   --exhaust fumes

   --airplanes, people burning leaves, etc.

SECTION THREE

EVALUATION OF AND OBSERVATIONS TAKEN FROM FIELD-TESTING AUDITORY INSTRUCTIONAL MATERIALS

OVERVIEW

Following the modification of existing auditory instructional materials and the development of new ones, staff efforts were concentrated on the formative evaluation of these materials with target audiences in their classrooms. In Section Three, an overview of field-test procedures and evaluation techniques is provided. Furthermore, some examples of staff observations of the interaction between children and materials during the evaluation experience are given.

STEPS IN FIELD-TEST EVALUATION OF AUDITORY LEARNING MATERIAL

by

NANCY CARLSON
CINDY LAFKAS

During the year, the Great Lakes Region SEIMC will be concerned with evaluating various auditory learning materials. Preparatory to any actual field-test evaluation, a preliminary classification system is being designed and formatively evaluated. This classification system will assist in organizing information necessary to evaluation.

At this point, the steps in the actual field-test evaluation appear to be as follows:

STEP 1: IDENTIFY SAMPLE(S) AND PRELIMINARY FIELD-TEST SITES.

To control for any large visual component invalidating the data, the logical first choice of subjects seemed to be visually impaired children, presently attending the Michigan School for the Blind. From these children, we would prefer to select 1) those who have a functioning auditory channel, and 2) those who would give us a range of stages (see attached Learner Classification System).

STEP 2: BASED ON KNOWN OR ASSUMED CHARACTERISTICS OF THIS SAMPLE, THE SEIMC STAFF WILL SELECT SOME MATERIALS TO BE FIELD-TESTED. OUR INTENTION IS TO SELECT AT LEAST 6 COMMERCIALLY AVAILABLE MATERIALS (TWO PER LEARNER STAGE).

The criteria for selection of material(s) at the first field-test are:

a. auditory information input only
b. capability of having pre/post test constructed for content learning
c. material with which the evaluators are comfortable

STEP 3: MEET WITH ADMINISTRATORS AND/OR TEACHERS AT FIELD-TEST SITE:

A. Those teachers interested and who have children meeting the specifications will be offered a choice. The choices mentioned below are not mutually exclusive:

1. The field-test evaluators will bring in the material(s) that the teacher selects from the proposed list presented by the SEIMC

and/or

2. The field-test evaluators will conduct an evaluation of materials the teacher is presently using.

This second option should have high pay-off to both the teacher(s) and the IMC, since both are interested in assessing learning. Each field-test site may have a primary interest in a specific material, and we would like to effectively utilize that interest.

B. It is expected that with minimal time invested, the teachers and administrators at each field-test site and the SEIMC staff will be able to reach agreement upon:

1. The number of children it will be possible to involve and exactly which children specifically.
2. The approximate amount of time necessary for interaction with each child and the approximate total amount of time at the field-test site.
3. The procedural decisions; for example, testing done in or out of the classroom, when the field-test evaluators can come to observe, etc.
4. The equipment necessary--i.e., does the SEIMC supply the equipment for the use of the auditory learning material or is it available on-site?

NOTE: During the preliminary stages of field-testing, the SEIMC will be concerned not only with the degree of learning from each specific auditory learning material, but also with procedural questions. In order to develop and refine these procedures we have chosen not to involve teachers specifically during the preliminary stages. We do expect to ask for cooperative planning and evaluation from teachers at a later time, but only to the extent that they wish to do so.

STEP 4: CONSTRUCT PRE/POST MEASURES OF CONTENT LEARNING

Once specific auditory learning materials and children have been chosen, a pre/post measure of learning will be constructed at the SEIMC. Prerequisite skills of the particular learners will be considered along with the content information contained in the auditory learning material.

Many commercially available materials have stated objectives. In this case, a pre/post measure may provide an indication of whether or not the objectives have been met. In other cases the evaluator's preliminary judgments about content will provide the initial framework to construct a pre/post measure. In the preliminary stages, the pre and post measures will be administered by a pre-recorded cassette tape with learner response to be verbal.

STEP 5: COLLECT BASELINE MEASURES ON SELECTED SUBJECTS

In order to provide reliable and valid feedback to the Media and Materials Development Unit and the field-test site personnel, we feel it is important, particularly in the beginning stages of the evaluation effort, to have data on how the selected children respond to auditory stimulus under "ordinary circumstances."

As data-recorders, we will be particularly interested in verbal and non-verbal expressions of interest, motivation under conditions of a presented auditory stimulus, etc., and in the child's familiarity with audio playback equipment.

Once an observation schedule has been agreed upon by the teacher and the field-test evaluators, baseline observations will be recorded on-site, with analysis to be done at the SEIMC. The field-test evaluators will make every attempt to be as unobtrusive as possible in collecting the data, while still allowing some separate time for the children to become accustomed to their presence, hopefully to reduce the Hawthorne effect. Minimal evaluator-child interaction is anticipated to maximize emphasis on material-child interaction.

STEP 6: FIELD TEST OF SELECTED MATERIAL(S)

Particularly during the initial field-test evaluation stages, we are interested in specific patterns of behavior relating to interaction with the auditory learning material. To help us keep this data as specific and objective as possible, we will be utilizing the following procedures:

1) All field-test sessions (actual "testing") of materials will be tape-recorded. We are planning to use a Sony TC 45 with a built-in microphone. Insofar as is possible, this will be unobtrusive measurement.

2) One of the two field-test evaluators will record pupil-material interaction observations.

3) The other field-test evaluator will be responsible for any procedural concerns--i.e., making sure pupil is "on task," helping with equipment if necessary, answering questions, administering pre/post measures, etc.

STEP 7: ANALYZE DATA

Data from the field test site will be analyzed at the SEIMC. In all cases information about specific children and/or teachers will be kept confidential, anonymous, with no individual data made available in the compilation of results.

The information obtained will be utilized in the following ways:

A. To suggest modifications in:
    1. procedure
    2. material(s)
    3. equipment

B. To provide written feedback to:
    1. the Media and Materials Development Unit
    2. the personnel involved at the field-test site.

NOTE: Along with this rather situationally specific report, which will be available rather soon after field-testing, the SEIMC staff expects to have a more comprehensive report available at the end of the fiscal year 1973-74. This report, plus any additional information applicable to personnel interested in working with auditory learning materials, will be given to those people who have worked cooperatively during field-testing.

10/22/73

SOME FURTHER NOTES ON

ELICITING LEARNER REACTION

by

NANCY CARLSON

The evaluation component of the Media and Materials Development Unit is concerned with gathering data relating to learner response to auditory learning materials. Much of the information regarding content learning is being gathered in a cognitive pre/post test format. However, we are also concerned with affective (subjective) feelings about learning in a particular way. Many times this information is difficult to obtain from the learner. In trying to elicit reactions of handicapped learners in a time limited field-test situation, it might be wise to keep in mind a few suggestions.

1. Children functioning at a low level are usually capable of only minimal responses to evaluative questions. This may mean nodding or shaking the head, a verbal yes/no response to a direct question or a blank stare, among other things. For these children (we're describing them as Stage I learners) we've attempted to give some limited-choice, concrete options. Examples of this type of question can be found on the attached sheets under "Stage I."

2. Children functioning at higher levels, but who have been in school systems for awhile, have a tendency to respond to evaluative questions *as they think you want them to respond.* An example: Question - "Johnny, how'd you like that tape?" Answer - "Oh, that was good. I really liked it." Or even more direct: Question - "Did you like the tape?" Answer: "Yes."

   His response, of course, may be an accurate report of his feelings; however, when during the tape he has sworn under his breath, looked bored, looked at the clock and a few other things, it becomes increasingly difficult to positively correlate verbal and non-verbal behavior.

   We've attempted to get around that problem by asking more indirect types of questions. If a learner liked or disliked the auditory learning material for whatever reasons, it usually becomes apparent in the responses. We have included questions of this sort under Stage II and Stage III sections on the attached pages.

3. Children who give limited responses (one word or word phrase) in reply to a how or what question can often be encouraged to elaborate by asking them "Why?"

For example: "What could we do to make this tape better?"
A: "Shorten it"
Q: "Why?"
A: "Because it is boring during the part that talks about leaves--I already know that stuff about leaves."

Much more evaluative information was gained from asking why. You might want to make a mental note to keep "WHY" handy when eliciting learner reactions.

4. A few learners are excessively verbal. They respond very positively to your attention, however brief, and really come on strong with responses. They may, in fact, not say anything worthwhile, but just keep on talking. For these learners, you might try interrupting to clarify and summarize.

"Now let's see Johnny; I heard you say you thought the tape was 'right on' in terms of what you were interested in, and it contained some good information and you like to listen to tapes. That's a nice analysis. Thank you for your cooperation."

The attached sheets may be used as guides to types of questions appropriate for certain learners. It is quite conceivable that a particular learner may be given a question from each level. The questions are useable, but not mutually exhaustive. If you try other questions, we'd like to know so we can add them to our repetoire.

11/13/73

ELICITING LEARNER REACTION

STAGE I

1. Pretend you're the teacher. Choose the next person to listen to this tape.

2. If you could hear this tape again, would you want to hear it faster, slower or the same? Point to one.

   __ faster __ same __ slower

STAGE II

1. If you could make a tape for kids, what would you want to make it about?

2. If you had a chance to make that tape over, what would you do differently?

3. Think about the kids you know in school. Who do you think should listen to this?

4. Pretend you're the teacher. Choose the next person to listen to this tape.

5. Here are 10 chips. Show me how many chips this tape is worth.

6. Think of some words to tell me about this tape. Think of as many as you can.

7. When do you want to listen to this tape again?

NAC

Material ______________________________

Evaluator ______________________________

Pupil ______________________________

ELICITING LEARNER REACTION

STAGE II

1. If you could make a tape for kids, what would you want to make it about?

2. If you had a chance to make that tape over, what would you do differently?

3. Think about the kids you know in school. Who do you think should listen to this?

4. Pretend you're the teacher. Choose the next person to listen to this tape.

5. Here are 10 chips. Show me how many chips this tape is worth.

6. Think of some words to tell me about this tape. Think of as many as you can.

7. When do you want to listen to this tape again?

STAGE III

1. If you could make a tape for kids, what would you want to make it about?

2. If you had a chance to make that tape over, what would you do differently?

3. Think of some words to tell me about this tape. Think of as many as you can.

4. When do you want to listen to this tape again?

NAC

Material ______________________________

Evaluator ______________________________

Pupil

COMMENTS ON ASSESSING AUDITORY LEARNING
OR
THERE'S SOMETHING ELSE BETWEEN THE EARS

by

NANCY CARLSON

In the process of evaluating auditory learning materials with children, we have become aware of some interesting aspects. The comments that follow are general comments and do not relate to any one specific material. The comments fall into three rather broad categories:

1) The behavior of children when listening
2) The structure of the material to be presented in the auditory experience
3) The discussion following the auditory experience

BEHAVIOR OF CHILDREN

1. *Observable behavior by itself does not indicate whether or not a child is listening.*

We observed children who were over and under the table, constantly fiddling with equipment, playing with toys they brought, etc. These quite active children, nevertheless, listened, as evidenced by the responses to post test questions.

We also observed children who sat very quietly, stared at the tape recorder throughout, did not move a muscle, etc. Some of these children, although "perfectly behaved", did not learn one thing from the experience.

The key to evaluating behavior, as it relates to auditory learning, can be found in the baseline performance, or in observations of how the child normally performs. In other words, if he's normally all over the room, chances are he'll do that even if exposed to the most exciting and interesting material that can be found.

2. *It seems important that the child have some responsibility for controlling the auditory learning experience.*

In some cases, the children we worked with were quite happy putting in and taking out the tape. Other children wanted to start and stop the equipment when they felt it was appropriate. In almost all cases, this responsibility for control led to more involvement in the learning process.

3. *If the material is new, children will not recall all information given in only one listening experience.*

In available auditory learning materials, the information may contain new concepts, vocabulary, etc. After one listening experience, it is literally impossible for a child to extract selectively that which he is expected to remember. Often the children we worked with requested, in one way or another, to listen to the material again.

4. *The auditory experience alone is seldom sufficient to hold a sighted child's interest.*

A sighted child seems to need some more visual focus of attention. The focused alternate channel, whether it is visual only or visual-kinesthetic, seems to screen out extraneous factors, so the child can better concentrate on auditory learning.

For example, children, when given a card with a picture of a bird on it, were better able to answer questions about birds than those who didn't have a picture. With those materials that did not have such a focus, we found that a child's eyes often wondered, and this sometimes seemed to precipitate attention wondering.

Children who have a mental age under seven find it the most difficult to attend only to auditory material. Older children could sit still and focus occasionally, but by no means totally.

STRUCTURE OF MATERIAL

5. *Material that is meaningful for the child is most apt to be listened to.*

We found a lot of auditory learning material which no doubt is meaningful to a teacher. However, much of this material was not of interest to the child (and hence not as apt to be listened to). Information that was of interest to the child, presented in varying formats seemed to be the key here.

6. *Children need to know the objectives of the auditory learning experience.*

[illegible] way, a child needs to have made clear what he/she should liste[illegible] and why. We tried to organize the auditory experience by providing some sort of advance organizer, either in the form of a pretest or by telling the children what we wanted them to listen to. The more we worked, the more we found that the children were really happy to work with us because they were aware of why we wanted them to participate in the auditory learning experience.

7. *Those materials which provide for interaction are more likely to be attended to.*

The type of interaction varied; sometimes it was something manipulative the child had to do, sometimes it was answering questions, or repeating something, or doing something else the tape said to do. The opportunity for interaction seems to make the child feel that he is indeed a valuable human being and not just a passive receptacle.

Interestingly enough, (in most cases), it didn't seem to matter as much if the child wasn't extremely competent at the task. There was still sufficient motivation to try it.

DISCUSSION FOLLOWING

All auditory experiences that the children were involved in were followed by a discussion. The discussion allowed evaluators and teachers the opportunity to further examine learning and to elicit the children's opinion of the material.

8. *It seemed important to be open to the children's responses.*

The open questions allowed us to learn more about how children thought and reacted at various levels. Each child seemed to learn different things, probably based on his or her own experiential background. Through examining responses of many children, we were better able to make comments and predictions about the materials.

9. *It seemed important to allow children sufficient* *__time__* *to respond.*

Organizing an auditory experience for discussion purposes seems a more difficult task than we had anticipated. Often allowing a little extra time for verbal or non-verbal responses was helpful to the children.

10. *The children seemed to appreciate the opportunity to rate the material.*

Given a good relationship, the children were responsive to the chance to actually decide for themselves how they felt about that material. Following the rating, our evaluators and teachers asked "Why?" The answers to why children rated tapes in certain ways were indeed interesting, and again gave us insight about materials (and children!!)

March, 1974

FIELD TEST EVALUATION FORM

Material: ______________ Pupil Name: ______________ Stage: ________

Observer: ______________ School: ______________ Date: ________

Time: ________ Diagnosis: ______________

DESCRIBE SETTING:

_____ observers _____ students

Type of room: (size, comfort) ______________________________

____

Equipment Used for the Experiment: ______________________________

____

Ambient noise comment: ______________________________

Additional pertinent information: ______________________________

____

EVENTS OCCURRING:

Time	✓*	Objective Behavioral Observation	Clinical Impressions

*✓= material interaction behavior

Time	✓*	Objective Behavioral Observation	Clinical Impressions

*✓= material interaction behavior

Time	✓*	Objective Behavioral Observation	Clinical Impressions

GENERAL IMPRESSIONS:

*✓= material interaction behavior

OBSERVATIONS OF AUDITORY LEARNING EXPERIENCES

by

WILLIAM ANDERSON

The following are personal observations of field-test experiences of auditory learning materials with different populations of children. Observations are not material specific; rather, they relate in a general sense to all auditory learning materials used by the author.

1. Those materials including a pre-test appeared to be more successful with the children than those without a pre-test.

   The pretest appeared to serve as an "advanced organizer" for the children in listening to the material. Many of the children made either verbal or non-verbal responses when pretest material was encountered during the auditory experience. Children also appeared to perform better on the posttest when given a pretest.

2. Those materials presenting a great deal of cognitive information at the very beginning of the auditory experience did not appear to be successful with children.

   Based upon personal observations, it appeared children needed a short (but varying) period of time to become accustom to the field test environment, procedure and observer. During this time it appeared more attention was given to the new surroundings than to the auditory experience. It may be well to design materials with this factor in mind; allowing the child to "ease into" the auditory learning experience.

3. Those materials requiring active participation on the part of the child appeared to be more successful than those materials where the child could passively listen.

   When the auditory experience included a set of cards, required a response, etc., it appeared the child attended better and performed better on the post-test than when a material used a continuous one-way mode of presentation. The interactive approach may have the value of guiding the learner toward the desired responses.

4. When the child has the skills necessary to successfully complete the pretest for the auditory experience, allowing the child to listen to the material may produce counter-productive results.

   In a few instances where the child could answer pretest questions and then requested to listen to the material, the material appeared to interfere with previous learning. The child actually scored lower on the post-test than on the pretest. Some consideration should be given to the child's successful completion of the pretest.

5. The length of the auditory learning material may be correlated to the child's performance.

While there are many other factors involved (such as content, method of presentation, etc.) those auditory materials that were comparatively longer (25-30 minutes), did not appear to be as successful with children as shorter materials. The child's performance on the post-test appeared to be lower perhaps attributable to "forgetting." Perhaps the task then becomes to design materials that will ease the learner into the learning situation, allow adequate participation activities, but not force the learner's attention over a long period of time.

OBSERVATIONS OF AUDITORY LEARNING EXPERIENCES

by

CINDY LAFKAS

The following are general impressions gained from personal observations of auditory learning material field tests.

1. "Those materials which present a great deal of cognitive information appear to be more successful when accompanied by some type of "advance organizer."

   It appears to be difficult for even advantaged auditory learners to listen to a presentation without a purpose for listening. The listener seems to benefit from some direction early in the experience which focuses his listening for a specific purpose or purposes.

2. Specific cognitive details seem difficult to retrieve when presented within a large body of auditory information.

   Post-tests which called for fill-in-the-blank, auditory cloze procedures, or a closed response of any type seemed to be difficult. Some type of auditory attender, similar to visual underlining, may be helpful (repetition, pauses for processing, auditory signals for attending).

3. Learning seems to be increased when the child has some active part in the experience.

   Those materials which provided some interaction (pauses for verbal responses, visual or tactile component which accompanied auditory stimulus, etc.) seemed to be more effective in terms of the child's interest and learning. It also seemed that those materials which were interactive throughout the experience rather than just at beginning or end (pre-test/post-test material) were more effective.

4. The media selected for transmitting information may interfere with message.

   While any novelty experience may be expected to interfere with learning, it seems that with some machines, the novelty remains over time more important than message.

5. Children "listen" in very different ways.

   Behavioral observations provide data that show children may engage in many activities which may appear to be distracting but are in fact "auding" (based on results of post-tests). At other times children who appear to be auding are "tuned out."

6. Interest and personal meaningfulness affects the learning in auditory experience.

   Material-student match is as important in this educational experience as in any other.

7. General principles of learning seem to apply to auditorily-presented materials.

   Please see Nancy for indoctrination! These are imperative in planning any learning experience!

April, 1974

OBSERVATIONS OF AUDITORY LEARNING EXPERIENCES

by

MARSHA SMITH

The following observations may not be entirely materials oriented since separating the material from the child becomes an impossible task. However, an attempt has been made to pick out what I have felt to be important factors in observing the use of auditory materials--even though similiar thoughts may have been expressed by other staff members.

1. A "listening behavior" is difficult to define or observe since it apparently varies significantly from subject to subject.

   Briefly, this refers to the fact that "all eyes front and hands folded" may not be the "listening" position for all children. Observation forms indicate any number of extraneous movements may be made without significantly limiting auditory recall.

2. A visual to accompany the auditory presentation may actually be generally more helpful in attention holding than it is distracting.

   It seems through observing, that the children with vision attend better and have more recall if the visual is presented along with the auditory stimulus. Since children with vision are used to visually attending to something, this extra stimuli cuts down on the meaningless visual wandering around the room.

3. A totally objective appraisal of auditory learning materials is nearly impossible.

   This has been a point of distress from the beginning. There seem to be so many variables that we have not or cannot control. Because of this, to date, I feel that our observation, general impressions and the like are little more than subjective thoughts on materials used--I wonder how our opinions would differ significantly from those of a classroom teacher who used the materials in her classroom. Please don't misinterpret these thoughts as pessimistic but think of them more appropriately as realistic.

4. It seems as though most auditory learning materials are of more use when heard a number of times as dictated by the Subject (instructional level and motivational interest) than on a one time only basis.

Many materials field tested although matched fairly well to the child, often seemed frustrating when presented with little or no introduction of the subject matter (necessary when supplemental), vocabulary, etc. In most cases, from the old teacher's point of view, the materials were not used as they would be in a classroom setting.

5. It is important to provide feedback and material/child interaction.

   A pre-test, though not content dependent, or stated objectives seem to be helpful in guiding the Subject's listening. The observations indicated that children responded well to being given the answers to questions, as on post-tests--other children indicated that they liked being given clues as to important factors to listen for. It might be interesting to consider adding some kind of taped introduction to the subject matter presented on the tape prior to the "story" or whatever.

6. The child/material match is of great importance in making the most efficient use of both the child's time and energy and the material itself.

   This may be closely related to the comments included in #4 above. Many times, due to the time limitations and availability of subjects, it was necessary to give a child a material for which he may have been appropriately matched but not totally prepared for. Again, the problem of introducing a material or using it several times seems to be very important.

7. Giving the child time in which to respond (or pacing) to the material is important.

   With the use of the button box or the stopping of the tape recorder to allow the Subject ample time to answer the questions or complete a sentence or just to comment seemed to cut down on visible frustrations and to encourage more appropriate verbalizing.

8. As indicated by the materials survey, 80% of the Auditory Learning Materials are supplementary. Therefore, the children need, deserve and appreciate some form of follow-through (discussion, worksheet, etc.).

   This again may seem redundant or an extension of numbers 4 and 6 above. However, it does point out the difference between preparation for the auditory experience and following it through. Here again, such activities appear more appropriate in the classroom than in the field test situation. This would, I think, provide more accurate appraisal of what has actually been learned.

Although these points are of concern and interest to me, I realize that in some respects they seem to confuse the issue--especially where field testing is concerned. Perhaps it just points out the subjectivity I feel we are experiencing.

4/2/74

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CONSORTIUM

ON AUDITORY LEARNING MATERIALS

FOR THE HANDICAPPED

REPORT

The work presented herein was performed pursuant to a Grant from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

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CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

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R E P O R T

INTRODUCTION

Auditory learning--the development of instructional materials for effectively utilizing the auditory channel as a mode of instructional input--is a topical focus worthy of a Consortium and demanding of the sort of multi-lateral resources promised by a Consortium. At the 1973 IMC/RMC Network Planning Meeting in Dallas, the concept of a Network Consortium for the development of instructional resources utilizing auditory learning was presented. The concept proposed was that of a unified effort of cooperating in the identification, examination, evaluation, modification, and development of materials (in keeping with federal Workscope) that would have use by that portion of the handicapped population that can best benefit from materials that provide learners input through the auditory channel. The effort was perceived as paralleling the national effort of Regional Media Centers for the Deaf and their concern in the area of materials for learners who use a visual mode of information reception. Further, the Consortium would build upon existing operating units that have already established themselves in the area of instructional resource development. Such a move would capitalize on these unit's unique abilites rather than attempting to create a new development unit with its ensuing "tooling up" period. The Consortium would also draw on the diverse strengths of the member units to build a viable development group which necessitates many different types of functions and expertise (i.e., instructional design, formating, field testing, prototype development, curricular design, etc.).

Ten members of the IMC/RMC Network pledged support to the Consortium at the Dallas meeting. The Consortium operated internally to the Network and interlocked with the National Center for Educational Media and Materials for the Handicapped.

The Consortium activities evolved about seven separate strategies that were designed to create a system that (1) focused attention on the development of learning materials that use an auditory delivery mode, and (2) modeled and tested procedures for the development of consortia within the IMC/RMC Network.

SECTION ONE

MEMBER UNIT ACTIVITIES

Auditory instruction includes a number of instructional strategies which relate to the learning potentialities and needs of many kinds of handicapped children. It is a large topic area which requires a wide variety of development and evaluation expertise--not typically available at any one network unit. The several units within the IMC/RMC Network whose workscopes included some focus in the area of auditory learning composed the nucleus of the Consortium.

Each member unit agreed to work autonomously toward its stated unit objectives and to contribute on a cooperative basis toward the fulfillment of the Consortium's objectives. On the following pages are summaries of the stated objectives of each member unit in the Consortium on Auditory Learning Materials for the Handicapped.

Where	Leader	Goals
Illinois Special Education Instructional Materials Center Office of Superintendent of Public Instruction 1020 S. Spring St. Springfield, Illinois 62706 (217) 525-6601	1. Jacqueline Crane Jean Preston (Teacher-ideas are being collected)	1. To act as a clearinghouse and broadcasting system for teacher-developed ideas and materials for education of exceptional children.
	2. Jacqueline Crain Nick Xamis (Media workshops have been held as scheduled)	2. To improve classroom instruction for handicapped children by conducting media workshops for 20% of those special education instructors by 1974.
	3. Margaret Niederer William Lohman (Project dropped)	3. To provide by 1978: 75% of all handicapped children to receive an equal opportunity through the provision of systems and resources so that instructional and learning material, practices and services are available to all persons involved in the education of handicapped youth.
	4. Jacqueline Crain James Meeks	4. To expand and improve programs concerning the educational needs of the visually impared because at least 55% of the teachers or educators of these programs and including at least one representative from each special education district or joint agreement program will become familiar with new developments in the field, special curriculum, techniques, processes and materials for daily living skills.
	5. Jacqueline Crain (project is on going)	5a. By 1977, to have materials appropriate to the needs of handicapped children because 70% of the special education personnel will be aware of the system and its services and 60% of those aware of the system will receive specific utilization instructions. They will also have a thesaurus available to them within two weeks if they desire. b. By 1974, to have 20% of those aware of the system utilize the services once or more. Those requesting service will receive a response within two weeks from the date the request is received.

Where	Leader	Goals
Illinois Special Education Instructional Materials Center continued -- page 2	6. Jacqueline Crain (Workshops for teachers of the deaf have been held)	6. By 1975, to improve classroom instruction for handicapped children by having 50% of special education instructors who have completed the media workshops utilize this knowledge and ability in their classroom.
	7. Margaret Niederer Jerry Baginski	7. To make those responsible for purchasing instructional materials for exceptional children more aware of the many factors involved in the appraisal of instructional materials.
	8. Jacqueline Crain (ongoing)	8. To conduct a series of training programs to train/retrain the Department Staff in order to improve instruction of children by familiarizing state staff with materials, techniques, and teaching processes; develop advocates for IMC services; and in some areas, train the various staff as teacher trainers in selected areas.
	9. Margaret Niederer William Lohman (ongoing)	9. To update the materials inventory file to include 90% of all materials in the IMC collection. The file includes short-term loan items for patrons interested in the education of exceptional children, and long-term items for educators responsible for programs for the visually handicapped.
	10. Jacqueline Crain Cheri Hammann (ongoing)	10. To make available information regardi[illegible]esses and products in Special Education to Illinois educators and others interested in the education of exceptional children by phone, mail, face-to-face contact, and dissemination.
	11. Jacqueline Crain Margaret Niederer (ongoing)	11. By 1974, (to the limit of the financial and staff capabilities) the IMC will provide information concerning their requests to 95% of the patrons within two weeks and will provide requested materials within three weeks to 25% of the patrons.

Where	Leader	Goals
Illinois Special Education Instructional Materials Center continued - page 3	12. Lori Mick Margaret Niederer (Field testing just begun, a list of materials has not been compiled)	12. To compile a list of materials for the instruction of severely, profoundly, and multiply handicapped. It will be duplicated and distributed to teachers of severely, profoundly, and multiply handicapped and other RSEIMC's. Field testing of materials will occur at three to ten sites.
	13. Bobbie Cheaney Margaret Niederer (ongoing)	13. To provide basic educational materials (braille, large type, recordings, and tangible aids) for visually handicapped students in educational programs, beginning with age three and including adults, when enrolled in an educational program.
	14. Nick Xamis Margaret Niederer (ongoing)	14. By 1974, to develop at least four pilot prototypes of preschool handicapped child-use materials.
	15. (Project dropped)	15. To develop a survey kit for task-oriented educational programs utilizing commercially available materials for children as well as teachers along with a film outlining past applications of these theories in all aspects of education for handicapped children.
	16. Margaret Niederer James Meeks Gail Lieberman (First meetings were held in October. Work assigned)	16. To develop a model and packet of materials on daily living skills for elementary visually impaired children in special education classes.
	17. Margaret Niederer Bobbie Cheaney (First meeting was held October. Work assigned)	17. To analyze the needs to the visually impaired as they relate to listening skills and create new materials to meet these needs.
	18. Louise Giesecke Margaret Niederer (First meeting held in October. Work assigned)	18. To identify employment possibilities for the deaf and to locate and evaluate potential sources of relevant career awareness and prevocational materials.

Where	Leader	Goals
Illinois Special Education Instructional Materials Center continued - page 4	19. Margaret Niederer Lori Mick (Contract has been let. Script has been written)	19. To develop and produce two 16 m.m. color films to teach how to utilize specific instructional materials with each of four or more specific diagnoses of young children three to five years of age.
	20. Charmaine Young Margaret Niederer (Kit is in process)	20. To develop an on-the-job kit containing simple, specific tasks and practical activities, plus materials for the developmental areas of learning for young handicapped children.
	21. Tom Meredith Jacqueline Crain (Workshop to be held March 29-30, in Chicago)	21. To hold a workshop to fit the needs of practitiones in the area of orthopedically handicapped children.

Where	Leader	Goals
Southwest Regional Media Center for the Deaf College of Education New Mexico State University Box 3AA Las Cruces, New Mexico 88003 (505) 646-1017		1. To conduct a search for child-use materials. Priority areas for the search shall be auditory training, language and vocabulary development, career education, basic mathmatics concepts and total communication. 2. To modify or adapt avialable, effective, validated instructional materials so they can be used by hearing impaired students. 3. To develop plans and procedures for field testing materials for the hearing impaired. 4. To field test available child-use materials with hearing impaired children. 5. To cooperate in identifying field test guidelines with NCEMMH. 6. To conduct a search for educational technology related training materials for use by teachers, para-professionals, parents, training institutions and intra-state agencies. Priority areas for the search shall be utilization, selection, evaluation, production of materials, operation of equipment and integration of media in planning instructions. 7. To pilot test training packages developed during FY 1973. 8. To design and develop a package demonstrating the operation and maintenance of group amplification equipment, individual audio trainers, personal hearing aids and auditory training equipment which will help provide both deaf and hearing teachers of the hearing impaired aid in maximizing auditory input to their students.

Where	Leader	Goals
Southwest Regional Media Center for the Deaf continued - page 2		9. To field test media and educational technology training materials designed for instructors of the hearing impaired. 10. To participate in the Network Information System Task Force Subcommittee on evaluation. 11. To coordinate with regional IMC's in response to state requests for RMC services related to special media and materials within limitations of budget and workscope elements. 12. To continue the advisory council for administrativ consultation. 13. To conduct long-range planning for program development consistent with BEH objectives. 14. To perform overall project monitoring, appraisal and reporting including submission of necessary reports (includes development of measurable strategy objectives, task analysis and charting as well as development of specific evaluative procedures). 15. To provide the staff with the opportunity to acquire new skills and update old skills relevant to effective and efficient Center operation.

Where	Leader	Goals
Special Education Instructional Materials Center University of Wisconsin 2605 Marsh Lane Madison, Wisconsin 53706 (608) 263-5860		1. Instructional materials for the severely retarded will be identified, classified and filed. On request, special educators can be referred to sources of such materials. 2. Evaluation information on the above materials will be sought, and where available, included with the file information on the product for report to the special educator. 3. SEIMC/UW special educators will receive information or be referred to information on instructional resources for children with auditory learning and visual learning problems through the auspices of a consortium with which SEIMC/UW is associated. 4. Possibly, a national center on instructional resources for the retarded will be available to special educators generally. SEIMC/UW will explore the parameters of the problem and its capacity to take leadership. 5. A pool of media-training material, or reference to the same will be available to SEIMC/UW special educators as a result of our attempt to locate such material in preparation for discerning the needs for new products in this field. 6. From three to ten media-training products will be available for special educators. These will be developed over the coming year and have their prototypes in similar materials developed in FY 1973 to accompany a course for special educators on the Design and Assessment of Instructional Materials.

Where	Leader	Goals
Special Education Instructional Materials Center continued - page 2		7. Instructional materials for handicapped children, generally, will be located, classified, and made available for reference to special educators. In addition, the extant collection of such materials will be maintained and kept available for client use. 8. Evaluation, essentially formative and/or classificatory, will continue to be preformed on in-processed instructional materials. These data are and will continue to be available to special educators on request. 9. Search/retrieval services will continue to be available to special educators in all areas of extant SEIMC/UW collection of materials and/or in research areas via CEC/ERIC. 10. Standardized and evaluated procedures for evaluation will be part of an evaluation manual produced by the Network Evaluation Committee chaired by Dr. Armstrong, SEIMC/UW. Though this is not a direct service to a primary client, it is clearly a step that is required before uniform, quality evaluation data can be made available nationally through the Network. 11. Members of the SEIMC/UW staff will participate in the production of National information systems for the Network in the coming year. Adoption of a recommended procedures manual would be a clear benefit to primary Network clients through increasing coverage and lowering unit cost of information bits used in referral, search, information exchanges, and so on.

Where	Leader	Goals
Special Education Instructional Materials Center continued - page 3		12. The extant collection of teacher and child-use materials will be maintained through replacement acquisitions. 13. The above collection will be continuously available for use by child- or teacher-client. This entails the need to in-process materials, ship materials, check in returns, repair materials, maintain a usage record, and account for fines or replacement charges. 14. Members of the SEIMC/UW staff will participate in the planning and development of a National system (uniform or compatible between Network units). The effect on the target client, though indirect, is most important. Uniform national procedures for doing all the tasks described in 12 and 13, above, will not only avoid duplication of efforts, but increase the choice and accessibility of instructional materials to all special educators. 15. SEIMC/UW staff will participate in state planning in Wisconsin to the end of developing increased levels of child and teacher service through local ASEIMCs. 16. A field study will be done to demonstrate the effec on the learner of ASEIMCs. Three Wisconsin communities (no ASEIMC, new ASEIMC and established ASEIMC) will be contrasted via yearly gain scores of special classes selected at random in these areas. 17. Publication of the Wisconsin Delivery system as an exemplary system.

Where	Leader	Goals
Special Education Instructional Materials Center continued - page 4		18. Maintenance of mail lists of special educators and allied personnel (computer based) and the use of the same for addressing periodic and aperiodic publications on behalf of the state departments in Wisconsin and Minnesota. 19. The long term loan of instructional materials for the severely handicapped (presently known or identified through Work Area I efforts) to ASEIMCs in Wisconsin and/or assistance in the establishment of a computer-based system of periodic assessment and remedial suggestions for reading problems. 20. The long term loan of materials for off-campus University of Minnesota classes for special educators (University of Minnesota SEIMC). Also the long term loan of materials required to construct in-service training kits of new special education materials for use by area consultants with educators in the six state areas.

Where	Leader	Goals
Rocky Mountain Regional Special Education Instructional Materials Center University of Northern Colorado Greeley, Colorado 80631 (303) 351-2681		1. To add 100 instructional programs to the anthology of Instructional Materials developed during FY 1972 and FY 1973. 2. To develop a collection of compressed speech tapes for the visually handicapped with emphasis during the first year on the social science content areas 3. To identify, collect, classify and loan needed, as indicated by client requests, media training materials to clients within the region. 4. During the second year of this project, to produce three additional mediated teacher's guide for selected instructional materials designed to teach arithmetic skills to the educable retarded students. 5. To expand, process, maintain, and lend its instructional media and materials to support the development of associate centers within the region. 6. To provide individualized services which relate directly to the priority requests of the states and their affiliated centers based upon negotiations completed with each of the directors of special education and/or their direct representatives.

Where	Leader	Goals
Northwest and Regional Special Education Instructional Materials Center Clinical Services Building University of Oregon Eugene, Oregon 97403 (503) 686-3585	1. Glen Latham, Evaluation Specialist	1. To locate instructional materials as identified by Regional Resource Centers, state departments of education, the NCEMMH and other agencies within the service region.
	2. " "	2. To locate and subsequently modify and/or develop and field test culturally relevant thin-market materials for the NWSEIMC service region.
	3. Larry Carlson, Materials Specialist-Teacher Training Materials	3. To develop a prioritized list of teacher competencies in the area of media and materials usage.
	4. " "	4. To develop and forward to selected colleges and universities a list of training needs of ASEIMC staff members.
	5. " "	5. To develop a syllabus and workshop manual including competency-based media and materials skills for use in pre- and in-service training.
	6. " "	6. To develop an annotated list of programs and materials available within the NWSEIMC Service Region relating to media and materials.
	7. Dwight Fairbanks, Media Coordinator	7. To develop, field test and disseminate Total Information Package #5 on teacher-made materials.
	8. Marlie Moses, Library Coordinator	8. To acquire, classify and loan media training materials for teachers of the handicapped.
	9. Julie Martineau, Materials Specialist, Child-Use Materials	9. To prepare and circulate traveling packages of child-use materials for upgrading teachers' competencies.
	10. Larry Carlson	10. To develop a competency-keyed index of multi-media materials for training teachers of the handicapped.

Where	Leader	Goals
Northwest and Regional Special Education Instructional Materials Center continued - page 2	11. Larry Carlson	11. To disseminate upon request information on materials for training teachers in media and materials for the handicapped.
	12. " "	12. To loan to other regional SEIMC/RMC upon request teacher training materials in the NWESIMC collection.
	13. Julie Martineau	13. To identify, acquire, classify, evaluate, describe and loan child-use materials to unserved teachers and others working with the handicapped.
	14. " "	14. To assist teachers and others in selecting material via various search and retrieval systems.
	15. Bill Pellant, Coordinator of Regional Network Development	15. To provide upon request Computer Based Resource Units.
	16. Marlie Moses	16. To maintain and share upon request with ASEIMC's a source file of materials.
	17. Bill Pellant	17. To establish new ASEIMC's in unserved areas of Oregon, Alaska, and the Trust Territory of the Pacific.
	18. Julie Martineau	18. To conduct workshops on the selection,utilization and evaluation of materials.
	19. Glen Latham	19. To assist ASEIMC's in the evaluation of the effectiveness of their in-service training.
	20. Julie Martineau	20. To circulate Current Awareness Packages to ASEIMC's
	21. Regina O'Neil	21. To disseminate a bi-monthly newsletter describing materials through state departments and ASEIMC's.

Where	Leader	Goals
Northwest and Regional Special Education Instructional Materials Center continued - page 3	22. Regina O'Neil	22. To disseminate a monthly Newspack to ASEIMCs.
	23. " "	23. To disseminate to teachers and others working with the handicapped, brochures, flyers and registration cards.
	24. Bill Pellant	24. To prepare and disseminate a directory of ASEIMC's
	25. " "	25. To develop and disseminate displays and multi-media presentations describing materials services.
	26. " "	26. To purchase and disseminate Videograms (from USC-IMCSE) to selected ASEIMC's.
	27. " "	27. To provide training to ASEIMC staff members on media, materials, and educational technology.

Where	Leader	Goals
The National Center on Educational Media and Materials for the Handicapped Ohio State University 220 West Twelfth Ave. Columbus, Ohio 43210 (614) 422-7596		1. To evolve operational standards for the review of proposed media development and field testing. 2. To operate the OPA clearance review process. 3. To operate a review of prototype materials. 4. To update the Producer's Guide as required by changes in law, regulations, and standards. 5. To supply information on commercial and non-commercial producers. 6. To assist BEH sponsored projects and programs with technical aspects of production and product development. 7. To assist projects and programs with copyright, patent, and release processes. 8. To develop manual retrieval systems for locating specific instruction for an objective in available commercial materials. 9. To provide selected media to the IMC/RMC Network. 10. To produce field tested media for the handicapped which has been classified by a Selection Panel as thin-market material, i.e., not commercially viable. 11. To provide liaison between commercial marketing field and the NCEMMH. 12. To move training materials related to high priority instructional materials into distribution system.

Where	Leader	Goals
The National Center on Educational Media and Materials for the Handicapped continued - page 2		13. To maintain a depository of all network produced materials.
		14. To inform trainers and projects about needed competencies.
		15. To complete development of self-contained multimedia teacher training.
		16. To develop a demonstration of training packages.
		17. To engage in long-range planning activities.
		18. To develop design-guidance parameters for producers.
		19. To coordinate the development of a comprehensive information/delivery system design.
		20. To inform target groups about the NCEMMH activities.
		21. To receive advise and policy.
		22. To service governmental relationships.
		23. To structure task forces.
		24. To report activities.
		25. To plan future activities.
		26. To assess NCEMMH program effects.
		27. To provide programmatic reports.
		28. To coordinate the development of information strategies to provide management information needs.

Where	Leader	Goals
The National Center on Educational Media and Materials for the Handicapped continued - page 3		29. To coordinate the development of strategies for assessing the impact of Center programs. 30. To interface with the IMC Network management information system (MIS). 31. Implement planning procedures across Center program areas. 32. To coordinate program monitoring activities. 33. To process evaluation. 34. To assist program area with evaluation tasks.

Where	Leader	Goals
American Printing House for the Blind Instructional Materials Reference Center for Visually Handicapped Children 1839 Frankfort Ave. Louisville, Kentucky 40206		1. To participate in teacher conferences and workshop and teacher training programs.
		2. To disseminate information regarding materials through APH ex-offices trustees who are chief state school officers, heads of residential programs, and some agency directors.
		3. To identify, evaluate and classify instructional materials for visually handicapped children.
		4. To maintain source files of educational materials for the visually handicapped.
		5. To produce catalogs, bibliographies, handbooks, etc. which provide source information in this area of exceptionality.
		6. To provide daily reference service for matching source of demand with source of supply in the area of the visually handicapped.
		7. To support teachers in their efforts to improve utilization of low vision among visually handicapped children. a) By providing an array of commercially available materials suitable for such training. b) By keeping the inventory of such materials up-dated and rejuvenated.
		8. To support teachers in their efforts to discover the usefullness of non-prescriptive lenses for certain low visioned children. a) By providing an array of such devices on loan for a period of time according to their particular needs.

Where	Leader	Goals
American Printing House for the Blind Instructional Materials Reference Center for Visually Handicapped Children continued - page 2		b) By providing a list of sources for devices needed by the children involved. 9. To support teachers in their efforts to improve utilization of low vision among visually handicapped children. a) By providing an array of commercially available materials suitable for such training. b) By keeping the inventory of such materials up-dated and rejuvenated. 10. To support teachers in their efforts to discover the usefullness of non-presceiptive lenses for certain low visioned children. a) By providing an array of such devices on loan for a period of time according to their particular needs. b) By providing a list of sources for devices needed by the children involved. 11. To discover, develop, and evaluate materials for teaching basic science concepts to young blind students. a) To evaluate the ability of young blind students to identify and manipulate component parts of a set of simple machines. b) To develop instructional aids and materials for teaching basic science concepts to young blind students with focus on discovery, evaluation, and dissemination of such materials by: 1) continuing search of commercially available science materials 2) continuing search of teacher-developed science materials

Where	Leader	Goals
American Printing House for the Blind Instructional Materials Reference Center for Visually Handicapped Children continued - page 3		12. To develop materials for introducing basic geographical concepts and fundamental map reading skills to visually handicapped students. a) To give visually handicapped children direct experience in learning basic geographical concepts related to their environment. 1) to develop a sit of lesson guides based on geographical experiences in which the child will gain knowledge of geographical features in his own environment 2) to help visually handicapped children use this knowledge in learning skills of map and globe reading. 3) to help visually handicapped children use this knowledge in other areas. b) To develop educational materials for teaching young blind students that real objects in a known environment (classroom) can be represented abstractly by: 1) orientation to the classroom 2) mobility in the classroom 3) use of symbols on maps c) To develop materials for introducing fundamental map reading concepts to visually handicapped students. d) To develop an auditory program to teach visually handicapped children geographical concepts. 1) to explore and define formats for recorded instructional presentations. 2) to explore and define modes for student response 3) to explore and define modes for providing feedback to students 4) to accumulate formative test data on instructional formats, and feedback modes so that a composite may be defined for the final year of research.

Where	Leader	Goals
American Printing House for the Blind Instructional Materials Reference Center for Visually Handicapped Children continued - page 4		13. To develop an instructional program to teach the use of the abacus to teachers of visually handicapped children.
		14. To disseminate information describing uses of the Chang Mobility Kit.
		15. To facilitate the teaching of basic audio linguistic skills in visually handicapped students giving special consideration to the needs of multi-handicapped and early childhood education. a) Adapt two units of Educational Develop-Laboratories "Listen and Think" tape lesson series. b) Make a survey to identify the major preschool language development programs in view of adapting materials for visually handicapped students. c) Make a feasibility study of the development of a series of experience-relevant stories for young visually handicapped children. d) Explore the feasibility of adapting the Cassette-Slide Series on "Rules for Talking to Your Child".
		16. To provide materials for teaching visually handicapped children to read, using braille as their meduim. a) To provide materials which will stimulate interest and curiosity about real things in the environment and, thus, an understanding of certain concepts encountered in reading. b) To provide materials which will develop an awareness of the importance of tactual discrimination.

Where	Leader	Goals
American Printing House for the Blind Instructional Materials Reference Center for Visually Handicapped Children continued - page 5		c) To provide a variety of interesting and motivational activities for teaching specific reading. d) To provide materials which will supplement and/or replace illustrative materials in inkprint textbooks. 17. To adapt educational measures designed for normal children for use with the visually handicapped. a) Areas to be surveyed: 1) general achievement 2) special areas of achievement, particularly reading and mathematics. b) When appropriate tests are identified, these tests will be adapted to braille and large type form.

Where	Leader	Goals
Great Lakes Region Instructional Materials Center 213 Erickson Hall Michigan State University East Lansing, MI 48824 (517) 353-7810	1. Marsha Smith Materials Specialist	1. To identify a group of available materials that utilize and develop the auditory channel for effective learning.
	2. " "	2. To classify the identified group of materials according to auditory learning characteristics.
	3. " "	3. To prepare a report relating information regarding the characteristics of auditory channel learning materials.
	4. " "	4. To select four specific commercially available auditory channel learning materials that have potential use with handicapped children.
	5. Nancy Carlson Materials Specialist	5. To evaluate the effectiveness of four selected commercially available auditory channel learning materials.
	6. " "	6. To prepare a report comparing the findings of these three evaluative procedures and to develop a workable plan and design for the evaluation of auditory channel learning materials.
	7. David Broski Media Specialist	7. To select a group of four auditory channel learning materials that would be more effective with handicapped children if modified.
	8. " "	8. To modify four auditory channel learning materials to increase their effectiveness with handicapped children.
	9. Nancy Carlson	9. To evaluate the effectiveness of four modified auditory channel learning materials.
	10. David Broski	10. To prepare a report of the findings of the modification and evaluation of the four selected materials.

Where	Leader	Goals
Great Lakes Region Instructional Materials Center continued - page 2	11. S. Joseph Levine Coordinator, Development Unit	11. To identify six formats for the design of auditory channel learning materials that will have potential with handicapped children.
	12. " "	12. To develop six new auditory channel learning materials for use with handicapped children.
	13. Nancy Carlson	13. To field test the first versions of six auditory channel learning materials for use with handicappe children.
	14. S. Joseph Levine	14. To modify first versions of six auditory channel learning materials on field test data.
	15. Nancy Carlson	15. To field test revised versions of six auditory channel learning materials for use with handicappe children.
	16. S. Joseph Levine	16. To prepare a report on the use of six differen formats for the design of auditory channel learning materials for handicapped children.
	17. " "	17. To submit for distribution the six new auditory channel learning materials for handicapped childre
	18. Marsha Smith	18. To select a content area and specific content objectives that are appropriate to the needs of handicapped learners.
	19. S. Joseph Levine	19. To select a format for the development of a new auditory channel learning material.
	20. David Broski	20. To design and develop a set of pilot example content specific auditory channel learning materials.

Where	Leader	Goals
Great Lakes Region Instructional Materials Center	21. Nancy Carlson	21. To field test a set of new pilot example content specific auditory channel learning materials.
continued - page 3	22. Marsha Smith	22. To prepare a report on the effectiveness of a set of pilot example content specific auditory channel learning materials.
	23. S. Joseph Levine	23. To redesign a set of new pilot example content specific auditory channel learning materials.
	24. Nancy Carlson	24. To field test the redesigned pilot example content specific auditory channel learning materials.
	25. Sue Ann Yovanovich Coordinator, Field Service Unit	25. To provide consultative services to state departments.
	26. Randy Gross Library Services Consultant	26. To provide consultative services to ASEIMCs.
	27. " "	27. To support ASEIMC Personnel in the management of their programs.
	28. Sue Ann Yovanovich	28. To assist state departments in planning, implementing, and conducting media and materials workshops.
	29. " "	29. To provide the state departments of special education and designated agents with up-to-date information on the availability and use of instructional technology, materials and developments.
	30. " "	30. Provide state departments of special education and ASEIMCs access to computer-based resource units (CBRU) out of Buffalo, N.Y., at the Macomb County Intermediate School District, Michigan.

Where	Leader	Goals
Great Lakes Region Instructional Materials Center	31. Sue Ann Yovanovich	31. Provide materials dissemination to ASEIMCs through state departments of special education.
continued - page 4	32. Randy Gross	32. Register users of child-use and mediated teacher-use materials and circulate these materials to registered patrons.
	33. Sue Ann Yovanovich	33. Provide support to state departments and ASEIMC personnel in developing and improving their skills in media, materials and educational technology.
	34. " "	34. Select and acquire child-use and mediated teacher-use instructional materials in support of the state departments of special education.

Where	Leader	Goals
Midwest Regional Media Center for the Deaf University of Nebraska Lincoln, Nebraska 68508 (402) 472-3171		1. To search for materials which have proven to be successful in teaching deaf students the language system currently known as "Total Communication". 2. To adapt existing materials so that they may be modified as child use materials. 3. To produce needed materials which are not now available. 4. To determine the effectiveness of existing materia adapted materials, and produced materials in the education of the deaf learner. 5. To focus in on the media needs of both college educators and supervising teachers that might be served effectively via mediated kits designed by the MRMCD. 6. To design, produce, and provide educational media kits to meet the specific media needs for a) college educators preparing teachers in education of the deaf and b) supervisory teachers in school programs for the deaf. 7. To draw upon existing resources to help meet the media needs of educational programs for the hearing impaired, and to prevent duplication of materials. 8. To design, develop, and package "mediated kits" that will meet the identified media needs of college educators preparing teachers of the deaf and supervising teachers of the deaf. 9. To develop and implement the procedures for loaning media-training materials to the target population.

Where	Leader	Goals
Midwest Regional Media Center for the Deaf continued - page 2		10. To search, identify and disseminate information (upon request) about available media-training programs and resources. 11. To provide pertinent and quick responses to questions about media design and utilization with the deaf. 12. To identify and classify those materials developed in this proposal for the hearing impaired child and other handicaps. 13. To conduct evaluative studies on MRMCD-produced learning materials to assess their effectiveness and recommended usage with the hearing-impaired child. 14. To insure a data base entry consistent with the Network-determined format for proper inclusion of materials into the national imformation system. 15. To insure that the media program of the MRMCD is meeting the objectives of the respective state educational plans for the deaf. 16. To provide, free of charge, MRMCD staff for media consultant services to educators of the deaf in our region. 17. To provide basic media design skills and techniques to teachers in their own schools so they may participate in developing their own instructional media.

SECTION TWO

INFORMATION ON AUDITORY LEARNING

In an attempt to provide Consortium members with a common language and to define the parameters of the Consortium's activities, a glossary of terms and a collection of definition papers were cooperatively developed by Consortium members. Dr. David Sabatino, Pennsylvania State University, initiated glossary terms with additions and deletions being supplied by other Consortium members.

Dr. S. Joseph Levine, GLRSEIMC, Michigan State University, developed the definition of "advantaged instruction" adopted by the Consortium. Member units then took the previously developed terms and parameters and drafted short definitional papers relating auditory learning to the different types of handicapped children that could benefit from auditory instruction. The glossary, definition of advantaged instruction and definitional papers are included in this section.

GLOSSARY OF TERMS

Advantaged Instruction - instruction that focuses on those areas that are functioning at the highest levels and that takes advantage of the child's functioning ability to promote further learning; this approach bypasses those functioning aspects of the child that are low in an attempt to provide necessary information that can promote normal performance in his environment.

Aptitude - basic learner characteristics felt to be related to, or underlie academic or vocational achievement, e.g., visual and auditory perception, frequently referred to as traits or abilities, and sometimes as specific behaviors.

Auditory Figure-ground - the ability to attend to a specific sound stimulus when presented in a background of ambient auditory information, synonymous with noise listening, or background sound exposure.

Auditory Learner - a child whose preference for or measured strengths would indicate a facility for learning through the auditory modality using that type of advantaged instruction.

Auditory Perception - central information processing of neurally coded auditory sensory information; this includes initial arousal, filtering, attention for, and the actual processing (of discrimination, retention, and sequencing) of those sound elements that permit interpretation of the environment and language facilitation.

Auditory Perceptual Discrimination - the ability to differentiate among environmental sounds, phonemes and morphemes by recognizing the distinctive features among auditory received information.

Auditory Perceptual Retention (Memory) - the ability to discriminate and then retain auditory information for short periods of time before that information is lost or used in association with a longer term memory bank containing language.

Auditory Perceptual Sequencing - the ability to arrange and organize auditory stimuli in a temporal order.

Auditory Reception -

Available Instructional Materials - are those instructional materials graphically reproduced to be used in both group and individual settings, including programmed reading and math, as well as supplemental materials, which can be readily procured by teachers from identifiable sources.

Classification Information - that set of information, more subjective than identification information, that provides a basis for selecting an instructional material for classroom use (purpose, group setting, educational level, etc.)

Commercially Available Auditory Instructional Materials - are those instructional materials that are available nationwide through a manufacturer or distributor and will be available for a period of years. They consist of materials that either comprise some vehicle for presenting sound (cassette, phono disc, audio flashcard, etc.) or a defined procedure for the creation of auditory experiences (suggestions for listening activities, stimulus for listening experiences, etc.)

Commercially Available Non-Printed Materials - are those teaching devices used as a supplement to the basic curriculum, i.e., teaching machine programs, instructional toys, puzzles, games, records, magnetic tapes.

Descriptors: Author's Description - the objectives, goals, or aims that a specified piece of identifiable instructional material is assumed to accomplish for a particular age level (chronological or mental) and type of learner or given educational setting (basic, vocational, special education).

Descriptors: Characteristic Descriptors - those identifiable features which permit statements on objectives for a particular piece of instructional material. These would include input mode, response mode, level of interest, language or reading level, manipulanda, type of handicap.

Evaluation:

Formative Evaluation - field testing of the pilot instructional materials on a limited sample of target population, following which, prototype instructional materials are developed.

Exploratory Evaluation - pre-field test exploration to determine feasibility of developing working instructional materials into pilot ready stage. A crude face validation of a given materials capabilities of meeting stated program objectives. Usually tested by using a restricted sample target population.

Pilot Evaluation - following exploratory evaluation, the working materials are returned to the laboratory for reconsideration and refinement, the product being a representative set of testable materials.

Evaluation (continued):

Preliminary Evaluation - subjective appraisal of the pilot materials by critical reviewers known to have expertise in that field. Frequently, teachers that would use the materials should be the review audience at this stage of evaluation.

Summative Evaluation - final field test on delineated sample of target population using the prototype materials, from which the finished product will emerge and validation statements be made.

Identification Information - that set of information which is objective and is used to describe identifiable characteristics of an instructional material (price, title, author, publication date, etc.). Of primary importance for the ordering of instructional materials rather than the selection of an instructional material for classroom use.

Instructional Maintenance - to achieve arousal and to maintain attention sets, an instructional procedure more commonly used with more seriously and multiply handicapped children for focusing attention on a particular stimulus or maintaining interest or learner participation. This is in comparison to advantaged instruction or remedial instruction.

Linguistics - the discipline which studies and identifies the building blocks of language; a curricula approach emphasizing language, conceptual development, as opposed to teaching symbolic distinctive featureness of sounds and shapes (perceptor).

Modality - the sensori-perceptual intake systems through which information is transmitted to the cortical areas of the central nervous system. Primary learning modalities are usually visual and auditory perceptual systems, secondary learning modalities are tactile, haptic, kinesthetic avenues.

Non-Commercially Available Auditory Instructional Materials - are those instructional materials that are similar in form as those that are commercially available, but are not available from national sources, and/or may not be available for a period of years. These materials may be teacher made, project designed, or developed by an agency or foundation. They must be able to be reproduced from designs supplied by the author/producer.

Non-Verbal Auditory Material - an instructional material employed primarily through the auditory input mode, utilizing motor, verbal meaningless (nonsense), visual, tactile, haptic, or kinesthetic instructional support or stimulation.

Primary Sensori-Perceptual Mode - to mean only the auditory modality.

Remedial Instruction* - special instruction concentrating on academic achievement when it is lower than the expected level based on measured intellectual capacity.

Replicable Non-Commercial Materials - teacher made materials that can be reproduced from the design supplied by the author/producer.

Secondary Sensori-Perceptual Mode - to mean all modalities other than auditory that can be used to support an auditory instructional experience (visual, tactile, haptic, kinesthetic).

Teaching Techniques - the case of the specific procedure technique or material presented through a replicable structure, wherein the directions for its use can be communicated to a previously unaware second party.

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*Heilman, A.H., Principles and Practices of Teaching Reading. Charles E. Merrill, 1972, pp. 552-553.

Verbal Auditory Material - an instructional material employed primarily through the auditory input mode utilizing meaningful verbal expression as a cuing, cluing or instructional support, or reinforcer.

Visual Learner - a child whose preference for or measured strengths would indicate a facility for learning through the visual modality using that type of advantaged instruction.

Visual Perception - accurate and rapid central information processing of visually received sensory information which includes discrimination, retention, and sequencing of visual information.

Zero Reject - Retardation refers to sub-average general intellectual function which originates during the developmental period and is associated with impairment in one or more of the following: (1) learning, (2) maturation and (3) social adjustment (Heber, 1959). Severe retardation refers to an IQ range of roughly 20-35 points and a maximum mental age of 6-0. Profound retardation refers to an IQ of 20 or less points and a maximum mental age of about 3-8 (Robinson and Robinson, 1965). A very supervised life, learning of essential health habits, and a little concrete level language characterizes the severely retarded. The profoundly retarded may be bedridden, may have sustained neurological, physical and/or sensory impairments and generally require total supervision. Mental Age maximum would be from 4-0 to 6-0.

USOE/MSU
REGIONAL
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MATERIALS
CENTER FOR
HANDICAPPED
* CHILDREN
AND YOUTH

213 Erickson Hall · Michigan State University · East Lansing, Michigan 48823
Cooperating With State Departments of Education in Michigan-Indiana-Ohio

ADVANTAGED INSTRUCTION
FOR HANDICAPPED CHILDREN

Traditionally, the training of teachers of handicapped children has evolved about three primary aspects: the understanding of the limiting features (characteristics) of particular handicaps, the procedures for assessing the effect these limitations have on the learning process, and the development of alternative approaches to instruction that compensate for the limiting features. The predominant emphasis has been on the first two--characteristics and assessment of handicapped children. A lesser emphasis has been placed upon the development of alternative instructional procedures. This has been due in large part to the lack of appropriate opportunity for teachers-in-training to actually try out procedures with handicapped children. It naturally follows that the initial experiences of new teachers are focused on the development of these alternative procedures. New teachers are continually attempting new ideas and techniques and making judgments regarding their relative effectiveness with their learners. If their pre-service training has provided a firm base of understanding in characteristics and assessment, the new teacher is able to successfully develop a large repertoire of alternative approaches for use with handicapped children.

This paper is concerned with the types of instructional procedures that are typically adopted and will suggest one instructional procedure that needs further investigation and exploitation. Such a procedure is ideally suited for a focus for the development of auditory instructional materials.

*Member — Special Education IMC Network — Bureau of Education for the Handicapped — U.S. Office of Education — An Equal Opportunity Employer

There are three different instructional procedures that are most typically used with handicapped children.

REMEDIAL PROCEDURE - The remedial procedure calls for the teacher to assess the handicapped child to determine what aspects of the child are limited. Traditionally these aspects have been of a content nature, but more recently there has been greater emphasis on learning skill areas (attention span, motor functioning, visual receptive skills, etc.). The teacher, after assessing the areas that are below level, focuses the instruction on these areas and attempts to bring them up to a specified level. For the child who is having reading problems, the teacher utilizes remedial reading materials to further develop the child's reading ability. For the child who is primarily a tactual learner, the teacher stresses those activities that utilize those sensory modes other than the tactual.

For those handicapped children who have mild handicaps and a maximum potential that approaches that of a normal child, remedial procedures seem to be most appropriate. Given focused instruction that deals with their specific learning problem, the child is most apt to attain improved functioning ability.

MAINTENANCE PROCEDURE - For a low functioning handicapped child, the maintenance procedure is often used to maintain the performance of the child at a specified level. This procedure is often used in conjunction with a remedial procedure and serves to reinforce the learning and guarantee its continued existence. In the instance of a trainable child who has learned to write his name, the teacher utilizes a maintenance procedure whereby the child is provided daily opportunities to write his name. The maintenance procedure is utilized primarily when the child's level of functioning has been defined and reached. The task of the teacher is to maintain the functioning of the child at the defined level.

For those handicapped children who are considered extremely low functioning, maintenance procedures serve to reinforce and guarantee the child's operation at a defined level. The selection of the focus of the maintenance procedure for a particular child is based on that aspect of the child that is most advanced and most able to attain near-normal functioning. This selection is further guided by those aspects of performance that are most needed to function within the society.

ADVANTAGED PROCEDURE - The advantaged procedure utilizes the same basic assessment approaches as the remedial procedure, but rather than focusing the instruction on those aspects of the child that are limited, the instruction focuses on those areas that are functioning at the highest levels. The instruction takes advantage of the child's functioning ability to promote further learning. It bypasses those functioning aspects of the child that are low in an attempt to provide necessary information that can promote normal performance in his environment. The prime example of an advantaged procedure is the instruction that is utilized with a blind child. The child has no ability to receive visual information so information is provided through auditory and tactual modes. The procedure takes advantage of the available learning channels. Similarly, the non-reading sighted adult is able to receive information through auditory channels that will permit him to function in society.

For those handicapped children who manifest physical handicaps, the advantaged procedure provides a means of inputing information that is not stifled by the handicapping condition. The advantaged procedure also has promise for instructing those learners who do not have physical handicaps yet demonstrate learning problems. For these learners the most used approach is the remedial approach. The advantaged procedure, however, can provide a viable vehicle for these learners since it utilizes available channels for the continued input of information thereby stimulating further growth.

ADVANTAGED/REMEDIAL PROCEDURE - The use of an advantaged instructional procedure with children who have mild handicaps is often disregarded in favor of a remedial procedure. It is suggested that a dual instructional procedure be exploited for use with this child since such an approach would provide for the continued input of information (through the advantaged procedure) while the lower functioning area is being developed (through the remedial procedure). Instructional materials that utilize an auditory format for delivery (tapes, records, audio flashcards, etc.) can provide a viable advantaged instructional procedure for many areas of instruction that are currently being treated in a solely remedial manner. Such an area, the input of information through reading (visual mode) has long been a major stumbling block for many handicapped children. Rather than focus instruction solely on the use of remediation to overcome the visual problem, it is suggested that materials of an auditory nature be used to bypass the problem area for the input of information. At the same time, depending on the particular learner, a remedial approach can be implemented that focuses on the reduction of the visual problem through appropriate remediation.

THE PROBLEM IN USING AN AUDITORY ADVANTAGED PROCEDURE - To facilitate the development of a dual advantaged/remedial instructional program for handicapped children who learn best through an auditory mode, it will be necessary to systematically develop and provide information to teachers regarding appropriate instructional materials and procedures that can be used for advantaged instruction. Since the emphasis to date has been on remedial instruction, the wealth of remedial materials far surpasses the number of materials that can be successfully used for advantaged instruction. The task, then, can be seen as a double thrust:

a) the systematic development of information about auditory instructional materials for advantaged instruction, and

b) the systematic development of information about the interfacing between these advantaged materials and the available remedial materials.

S. Joseph Levine
July 1973

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
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AUDITORY INSTRUCTION AND HANDICAPPED CHILDREN

--A COLLECTION OF PAPERS--

The following papers are designed to examine the use of auditory instruction with handicapped children. Auditory instructional materials, as an advantaged form of instruction, have been used with blind and visually handicapped learners for quite some time. The uses with other handicapped learners, however, has not been exploited to any great extent. It is the purpose of these papers to stimulate interest and ideas regarding the potential for auditory instruction with many types of handicapped learners. Though the thoughts and ideas presented are primarily suggestive at this stage, it is hoped that an increased focus on this form of instruction will yield more information to further understand the topic of auditory instructional materials.

ADVANTAGES OF AUDITORY LEARNING MATERIALS FOR THE PHYSICALLY HANDICAPPED

The population of physically handicapped, excluding visually impaired and hearing impaired, consists primarily of crippled and otherwise health impaired. Many of these children seen in public school programs have muscular dystrophy, spina bifida and various types of cerebral palsy. For them, the process of absorbing information by reading is often cumbersome and tiring.

A growing subset of this population is emerging and is currently classified as multiply handicapped. These children, in addition to being physically handicapped, may also be developmentally retarded, show evidences of being emotionally disturbed and/or have severe learning problems.

If we are to consider the cognitive and affective advantages of auditory learning materials for this second and more handicapped population, then we begin to overlap with the advantages afforded the other populations (i.e. learning disabled, mentally retarded, etc.) which are referred to elsewhere.

Most of the remaining distinct advantages of auditory learning materials for the physically handicapped fall into the psychomotor domain. These advantages appear to be:

1) An instructional cassette is lighter in weight than a book. For a physically handicapped child with little upper extremity muscle strength, this is an advantage.

2) It requires less fine motor skill to push a button on a tape recorder than it does to turn the pages of a book.

3) Instructional feedback is more easily given through the auditory channel, and is more consistent with day to day living experiences.

4) A larger body of information can be made available before a manipulative attempt must be employed; i.e. a child can hear more from a tape before he has to push a button than he would see before he would have to turn a page.

5) In the auditory area, there is more potential for adapting and modifying materials and equipment to specifically fit the physically handicapped learner's needs. (i.e. planned spacing, compressed speech, cued listening, etc.)

6) For the child with limited visual attention because of fatigue factors, (a concomitant physical problem with this population in many instances) listening (rather than reading) for information gain preserves remaining eyesight.

Nancy Carlson
December 7, 1973

AUDITORY INSTRUCTION FOR THE DEAF

Although the education of deaf students involves considerable amounts of visual input, the deprived sense (hearing) must be developed to its fullest potential. The development of listening skills is as important for the deaf student as it is for his hearing peer. Selected records, audiotapes, audiocards, and other auditory stimuli, such as group aids, are essential to the full development of the individual's learning capacity.

Auditory material for hearing impaired might be used for (at least) 1. Training in basic auditory--perceptual and integrative skills; 2. Practice in comprehension of spoken language; 3. Practice in association of spoken language with speechreading and reading of printed words; 4. Modeling of stress, rate, and other characteristics of spoken language, and 5. Information transfer.

The deaf student must use all the residual hearing that he has. Awareness of sounds for the deaf may begin with the recognition of gross sounds and progress to a higher order of frequency interpretation and response, such as speech recognition.

AUDITORY LEARNING FOR THE MENTALLY RETARDED

By definition, mental retardation has no special auditory connotations. Practically, however, the prevalence of hearing problems among the retarded is higher than among those of average intelligence. This may be due to (1) an impairment which can, at one time, result in both reduced intellectual as well as hearing defect, as in cerebral palsy, (2) separate defects of hearing and intellectual function, and/or (3) an interactive effect wherein reduced hearing function adversely effects already reduced intellectual function. Such examples are more appropriate to the severely and profoundly retarded than they are to the mildly retarded and they act to make the auditory modality disadvantaged in the former.

Hearing acuity and auditory learning are not identical in retarded or non-retarded persons. Where such problems exist in the retarded, materials and methods used with the deaf and hard of hearing may be suitable if appropriately modified to account for the reduced intellectual function. Further, there are no data (known to me) which suggest that auditory learning may, in fact, not be disadvantaged in some retarded persons regardless of severity of retardation.

In the mildly retarded, familial factors related to socio-economic level, health practices, or education, are probably more instrumental in creating auditory disadvantagement than any identifiable physical or neurological defects. This suggests that environmental manipulation may well be employed in discovering the advantaged receptive mode and in exploiting it. The research literature suggests that auditory learning has been successful, in various attempts, with the mildly retarded, at least short term.

James McCarthy
March 1974

AUDITORY LEARNING AND THE EMOTIONALLY DISTURBED AND AFFECTIVELY HANDICAPPED

by

Jacqueline Crain

Auditory learning presumes many things: an intact auditory system which can receive, recognize, and retrieve auditory experiences; opportunities for and exposure to auditory stimuli; an organism motivated and curious about its surroundings; an adequate self-concept. The child who finds his ego or self-concept threatened by experiences which he cannot comprehend or accept, or who is involved in personal crises, or the child who finds auditory experiences unpleasant will deny or tune out auditory stimuli.

It is difficult -- at times impossible -- to distinguish true from hysterical or selective deafness. Even more puzzling is the child who "denies" particular sounds or words or concepts which might be incompatible with his doubt, conflicts and shaky ego-structure. We often do not know if the child is hard-of-hearing or brain-injured or having successive petit mal seizures or perceptually handicapped or emotionally involved. Diagnosis must be continuous and preferably would involve a parent or teacher who is extremely observant of the child's limb movements, behavior, pauses, eye movements, etc.

The emotionally disturbed child has difficulty at all levels of auditory learning: awareness, reception, discrimination, memory or retrieval, association, comprehension. At each of these levels or processes he is having problems with self and others, dealing with real or imaginary threats to his ego, with tuning in to a world he finds frightening. Learning involves a change in behavior. The child who cannot cope with his problems is often fearful of learning and changing; he is disinclined to be challenged or motivated, to face even more possibilities of failure and ego-shattering threats to his vulnerability.

Children will use refusal to learn to punish those whom they feel to be causing their problems, real or fanciful. In our culture, where grades and school achievement are so highly regarded, the passive-aggressive child can score a signal victory over parent, teacher, and society by not learning.

AUDITORY LEARNING AND THE EMOTIONALLY DISTURBED AND EFFECTIVELY HANDICAPPED

We can close our eyes to that which we wish to avoid or to shut out. Tuning out auditory stimuli is much more difficult. Yet the emotionally disturbed child is prone to "close his ears" to a world which is overwhelming: he therefore closes out the channel through which the world might bring him those skills, concepts and attitudes which would effect the very adjustment he needs and seeks to achieve his potential - the love relationship which underlies all other achievements in life. And self-actualization.

Working with the emotionally disturbed/affectively handicapped child generally requires talk -- talking through one's problems in nondirective therapy, life-space interviews; even behavior mod demands attending to the facilitator or instructor, listening to the target behavior, discussing the system itself. Listening is basic. However, paradoxically, one of the impervious characteristics of the disturbed child is his inability to forget. This is the child who broods, becomes paranoid, cannot forget the incidental or unimportant details; in fact, his listening and memory are colored by his poor image of self and the perseveration of unpleasant feelings about a situation. He also lacks affect; often the child demonstrates a flatness of affect or feeling. He needs to be encouraged to emote, to have feelings, to be angry, fearful, joyous.

For the disturbed child, "listening" is an investment, requiring interest, empathy, sincerity and involvement on the part of all concerned in the educational and psychological therapies of the child. Teaching is a relationship; talking and listening are the basic avenues of this relationship.

MUSIC THERAPY AS AN AUDITORY LEARNING TASK

by

Jacqueline Crain

Musicians have long known the value of a "good ear" and "good vibrations". Music is encapsulating; it involves the whole person. Music will reach the infant - to soothe and entertain; the retarded - to teach movement, concepts, vocabulary; the autistic - to communicate when nothing else can penetrate; the stroke victim or aphasic, whose language area may be impaired but whose musical ability is often left intact; the culturally different - who find music and rhythms to be universally appealing.

The ear, unless it is physically defective and incapable of transmitting sound, is always "on", even during sleep, even during psychotic breaks with reality. Processing of auditory stimuli is much more complex, however. The intact hearing mechanism will receive the stimuli. But recognition, association, retrieval, and comprehension are dependent upon an integrity of the nervous system that does not always exist. The brain becomes increasingly differentiated with age and experience. And certain areas of the brain seem to deal more specifically with movement, vision, language, conceptualization, feelings, etc.

The best learning is that which utilizes many channels of input of experience and stimuli. This allows increased patterns of communication and storage of information. Retraining or rehabilitation of the dysfunctioning learner will often need to utilize several learning pathways to evoke the retrieval of words, experiences, concepts, and movements.

For the auditorially perceptually impaired, music provides other channels for imprinting information: haptic, motor or kinesthetic, language, visual. Matching tone with tone (as on the piano), or tone with one's own voice, will increase auditory discrimination. Simple repetitive songs will help to develop memory, retrieval, vocabulary, motor patterns (which may later evoke auditory retrieval). Some children have to actually "act through" a concept or word, utilizing the movement patterns, melodies, etc., which had been taught concomitantly.

MUSIC THERAPY AS AN AUDITORY LEARNING TASK

Recognition of simple melodies is a possible precursor to sequential memory on a non-language level. It provides a cross-cultural, no-age-barrier, multi-sensory, socially acceptable avenue. Young children "of all ages" respond to music; the effect is often affect. There is pleasure, one of the simplest, most basic emotions or feelings. And we learn that which brings us pleasure. This is the basis of all approaches to learning, be it behavior mod, operant conditioning, humanistic teaching, free school, etc.

Fringe benefits of music as therapy and instruction would be the social advantages of being "in", knowing the current songs, the music of one's heritage - church, school, country, even recent tv, radio and record hits. Ability to play a musical instrument can open many doors to companionship for the often lonely, isolated child who has had emotional problems and finds social roles difficult. Further, the coordination, integration, and organization necessary to play an instrument or join a band or musical group, no matter how primitive, has untold benefits for the disorganized, disintegrated, confused child who has had trouble "getting it all together". Even the blending of musical instruments in the playing of songs provides an opportunity to utilize figure-ground, comprehension, recognition, retrieval, etc., in a way no other activity can match as to pleasure and challenge.

There is a problem for the young and possibly the seriously disturbed in the danger of overstimulation of sound and "clutter" in current records and tv programs. Caution should be exercised if the child appears to be too "turned on" and "hyped" by music. Basically, however, there is an emotional involvement that cannot be denied any child who demonstrates interest in music. For music is the universal language.

SECTION THREE

CONSORTIUM MEETINGS

During the project year, there were three meetings of Consortium members. The purposes of these meetings were to plan Consortium activities, create a forum for the exchange of concerns to highlight areas of need and interest for the Consortium focus, to evaluate Consortium progress, and to input information about related projects and materials.

The first meeting was held July 17-18, 1973, to develop Consortium activities. The second meeting was held November 9, 1974, and the final meeting was held on March 7, 1974. The following pages contain minutes and other appropriate information concerning the three meetings.

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213 Erickson Hall, Michigan State University, East Lansing, Michigan 48823
Cooperating With State Departments of Education in Michigan-Indiana-Ohio

May 24, 1973

MEMORANDUM

TO: Network Units Collaborating In The Consortium on Auditory Learning Materials

FROM: Lou Alonso

SUBJECT: Dates of First Consortium Meeting

At our earlier planning session in Dallas, you requested the establishment of a July meeting date for the Network Consortium on Auditory Learning Materials.

Will you, then, please reserve the dates of Tuesday, July 17 and Wednesday, July 18 for our first meeting, contingent upon approval of our Amendment Request? We will forward a copy of our Amendment Request, hotel and other arrangements and agenda shortly. The meeting city will be Chicago, to facilitate travel arrangements.

cc: John Schneider
Ken Olsen
Bill Pellant
Gloria Calovini
Carl Oldsen
Don Erickson
Paul Andereck
MSU SEIMC Staff

LA:rh

AGENDA

THE CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

JULY 17 & 18

O'Hare International Tower

Tuesday, July 17

1:00 - 3:00	Review of history and intent of Consortium
3:15 - 5:00	Review of contributions and potential contributions of each participating unit
7:00 - 9:00	To be determined by group action

Wednesday, July 18

8:30 - 10:00	Development of work unit plans
10:15 - 12:00	Sharing and integrating plans

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

SUMMARY OF PROCEEDINGS

Chicago O'Hare International Tower
July 17-18, 1973

I. CONSORTIUM MEMBERS PRESENT

Tuesday, July 17

Bernadette Alber - Resource teacher, Evanston Township High School, area of vision

Corinne Cloppas - Illinois IMC, area of listening skills

Dan Dolbert - Illinois subcenter, works on different projects than Illinois IMC

Bonnie Wakefield - Kentucky IMC, materials specialist

Diane Ewing - NCEMMH, Communications Officer

Alan Cotzin - NCEMMH, coordinator of subcontracts

David Sabatino - Pennsylvania RRC, auditory perception research under USOE BEH

Hugh Summers - Southwest RMCD, deaf and hard of hearing, now developing package for teacher use of auditory equipment

Carson Nolan - APHB, educational research and development

James McCarthy - Wisconsin IMC, project director, area of mental retardation

Ted Ward, Joe Levine, Nancy Carlson, Lynn Kinzel, Michigan IMC

Wednesday, July 18

Wakefield, Cloppas, Alber, Ewing, Sabatino, Cotzin, Summers, Nolan, McCarthy, Ward, Levine, Carlson, Kinzel

Gloria Calovini, Illinois IMC

Robert Stepp, Nebraska, Midwest RMCD

NOTE: No representation at these meetings from Oregon or Colorado IMCs. Bill Pellant (Oregon) was scheduled to attend.

II. INTRODUCTORY DISCUSSION

A. Consortium will pay for expenses of those members of the Consortium in attendance. BEH has given green light for this meeting, in advance of full funding of the Consortium.

B. Handout "Topics, Problems and Issues for Discussion" was distributed to each member and projected on overhead. A brief reading of this material gave an overview of what should be covered at the meetings.

III. REVIEW OF THE HISTORY AND INTENT OF THE CONSORTIUM (Point 1)

--MSU has "both feet" in auditory learning (as coordinator of the Consortium on auditory learning materials and as the developers of auditory learning materials as stated in the FY'74 proposal.

--Consortium's auditory learning materials will involve much more than just the visually handicapped. (See Advantaged Instruction)

--BEH push toward child-use materials; Consortium needs interfacing within the Network for ideas, products, and field testing.

REPORT ON "ADVANTAGED INSTRUCTION" - Joe Levine

Definitions to clarify the distinctions
--Remedial - instruction to build in weak areas
--Maintenance - instruction to maintain as much as child is able to learn - limit has been reached
--Advantaged - build weak areas through child's strong channels. e.g. teach to the child's strengths; through strengths to weaknesses; work with what child has available; (auditory learning, not auditory impaired).

COMPENSATORY PROCEDURE - David Sabatino

--compensatory learning style: learner and his own development of one channel when another channel is deficient.
--compensatory instructional procedure: teacher who uses materials to bypass a deficient channel.

OTHER

--Dr. Sabatino suggested several times during the meeting that there needs to be initial development of auditory materials because there is practically no literature in auditory learning. Most of the literature has to do with the visual channel. There are only 3-4 pieces of auditory literature for every 60-70 pieces of visual literature.

--Question: How do we distinguish what the Consortium is doing with what others are doing for normal kids?

a) What we are attempting to do might also be useful for normal kids, but it has to be done for the handicapped child.

b) For the normal child it is more efficient to use print, thus auditory learning is given little attention.

IV. PRODUCTS ENVISIONED (Point 2)

A. Immediate goals: identify, field test, recommend commercially available auditory instructional materials

Looking to organize and integrate efforts to produce sets of materials. Exploratory audio instructional games.

B. Long Range Goals: Develop new materials by Consortium.

Within 1 or 2 years the Consortium hopes to be able to develop a whole curriculum task in a specific area which would lend itself to auditory learning. Develop analogue to Project LIFE, perhaps.

V. ROLES OF LEADERSHIP AND COORDINATION (Point 3)

--Joe Levine briefly presented 7 strategies of the MSU Consortium proposal.

St. 1 -- 2 meetings during the year for sharing and communication
-- circular (1st year not guided by Consortium but used to acquaint members with what is going on at the centers.
-- advisement services

St. 2 -- management - necessary to provide cohesiveness and compatibility with all Centers, thus it is impossible to legislate or give charges. (Later, Summers and Sabatino explicitly stated that the Consortium needs to be managed and there was general agreement among the other members of the Consortium.)

St. 3 -- provide a scholarly base of information to share with the members of the Consortium.
-- develop a workable way of defining materials and classifying; then define target population
-- descriptor list, common vocabulary

St. 5 -- development of materials after the first year. Assumes that a lot of people will really be interested in this. Hope for an increase of budget in years ahead for this particular area. Encourage non-duplicative efforts; encourage other units to extend efforts of others.

St.6 & 7 -- systematize and field testing of materials
-- hope for cooperative field testing.
-- Stages of field testing
    Level 1 - exploratory - see if product is feasible - just try out
    Level 2 - pilot example - formative evaluation (is it doing what it's supposed to do?) Field testing done at nearby place so developer can watch it and revise it.

Level 3 - becomes a part of preliminary set, not isolated material. Tested at other unit test sites. Test external validity, build prototypes.

--It is possible that all centers won't be doing the same things. Some center may just do all field testing.

VI. PROBLEM AREAS (Point 4)

A. GLOSSARY OF TERMS - Dr. Sabatino expressed at various points throughout the conference the need for a common vocabulary, a glossary of terms, which would allow all members of the Consortium to mean the same thing by the same term. Dr. Ward requested that Dr. Sabatino maintain a list of terms that needed definition and provide appropriate definitions. Dr. Sabatino will have this material disseminated to Consortium members by July 27, 1973 for revision and comment as Task 1 of the Consortiums specific goals agreed upon as a result of this conference. (See TASKS AND TIME LINE)

B. TARGET POPULATION - There was a lot of discussion about target populations because each Center has their own specific area of interest. Dr. Ward suggested that for now this question remain open. We would start with visually handicapped, multiply handicapped, etc. and investigate how materials could be used for other audiences.

It was also suggested that instead of defining by type of handicap, target population should be defined by skill area--auditory--and within skill area by different levels of specificity. However, it was not clear how things would be done differently for different levels of specificity.

Another suggestion: Target population would be any individual for whom visual or tactual reading is a problem.

C. THE SEARCH (See also feedback from small group discussions)

--The hardest part of the search is the screening - evaluating inclusion on subjective basis.
--Must have rationale for selecting material for inclusion.
--Carson Nolan suggested that the National Center be responsible for providing search procedures so that all Centers do an adequate job of searching materials.
--To ensure comprehensiveness, there needs to be a format.

--Another member suggested that MSU determine criteria for gross inclusion in the catalog.
--Materials included should be any material with auditory input characteristics.
--The materials can be divided into retrievable categories later (descriptor discrimination)
--MSU act as clearinghouse for materials
--Searchers must be willing to do things a little differently than if the Consortium didn't exist. Compromise.
--What materials can go into the Consortium?
include procedures in contrast with published materials?
what about materials that can't be purchased by users?
list by degrees of availability?
McCarthy looking for unique materials - classroom, research besides commercial. Any source is useful.
--How to limit the area of search for each Center
Divide by authors - A-G, etc.?
Divide by specific area of interest?
--Assumptions
Everyone similarly competent - arbitrary assignment
Each center has own interest and competencies and would be better able to cover certain areas
--MSU will contact Centers to assign areas of search.
--Nolan suggested that catalog search was ineffective. Must get the actual materials. It was decided this comes later since this is only a preliminary catalog.
--hunt for species of materials.
-- 1) go through commercially available auditory materials that exist
2) those materials that can be used with adaptations (2-3 yrs)
3) those materials that can not be used at all.

D. EVALUATION OF MATERIALS - DESCRIPTOR VOCABULARY

--How can result of search be exchanged in useful way?
--Should have common, comprehensive format for products so sharing of materials will be alike.
--All centers should not evaluate the same material, but should have uniform evaluation model.
--Armstrong committee--use base of existing (descriptor) information. Cue into those parts - not do new research on evaluation descriptors - use output - facilitative.

V. REPORT OF EACH CENTER AS TO WHAT IT IS DOING, WHAT IT CAN CONTRIBUTE TO THE CONSORTIUM AND WHAT HELP IT CAN GET FROM THE CONSORTIUM.

A. ILLINOIS:

(Dolbert) - working with 3 separate projects:

1) materials for training teachers
2) auditory materials for visually handicapped
3) identify and field test materials for severely multiply handicapped and for all areas with priority on young children

Illinois now has mandatory program 3-21. Need to identify material and field test material because no one knows if materials are accomplishing objectives

NEED: rationale for selection of material, what target population, what areas, which materials, methods of evaluating, target date.

SHARE: identification and field testing (3-10 test centers in Illinois), evaluation components and dissemination, gaps and needs for additional development.

(Cloppas) isolate and identify literature and materials especially for visually impaired
now going through ERIC to see what is currently available
needs of visually handicapped as relates to auditory--see if need to create new materials
target population: 11-12 year olds (least appropriate materials available for maturity of child)
work with teachers in Illinois; these teachers will help to evaluate the materials

(Alber) need to delimit population
lack of listening ability in high school and college age
NEED: already identified materials they can evaluate (they don't plan to field test)

KENTUCKY: (Wakefield)

auditory materials is secondary body of operation, not primary
searching for multiply handicapped and career education material
Blackhurst developing training packages for IMCs (Project 6), reading program done in last couple years is continuing in field testing stages

SHARE: Will try to catch auditory materials when searching for their specific materials
Can develop field test sites - Sterrett has diverse sites, cooperative channels with local school districts, some test sites inhouse, abundance of sites
Will help with the identification of auditory materials when they know what we want.

PENNSYLVANIA: (Sabatino)

last 18 months assessing what auditory perception is, e.g. componant parts, arousal, attention, etc.
most auditory materials are lost due to mental capacity
1) auditory perception discrimination
2) auditory perception retention
3) auditory perception sequencing
in studying regional differences, cross population, not getting variance as supposed
target audience: 0-9 (0-4/6-9)
decision tree, utilize componants
one material better than another--need to look at objectives

NEED: established descriptor list
learner aptitudes
maze or grid of developmental tasks
initial development of materials since there isn't much to be adapted
task analysis of what exists

SHARE: descriptor skills (Central Coordinating Unit)
100 resource teachers (can provide 14 for us)
1 target site
will do what ever he can with vigor
offered annotated listing of teaching procedures and research material for annex publication

Q. Which areas aren't there any materials for?
--retain what hear
--sequence for sounds
--morphological rules

NEW MEXICO: (Summers)

have nothing so far - have done some search, not sure if has to do with auditory materials
don't want to do original development of products
field test "our own" products

SHARE: will do search, modification, identification of effective instructional materials having to do with auditory input
will take systematic look at what could be modified

APHB: (Nolan)

have mainly to do with production and distribution of materials, 8 studios, professional readers
professional producers of media - hard and throw away record capacity
mass productions of cassettes (spent 1/2 million dollars on equipment)
world wide distribution
variable speech
design and manufacture players and recording equipment
modification of commercially produced materials for auditory users

research interest, learning through listening for visual handicapped
indexing of recorded material
now developing auditory materials as accompaniment for previously produced materials, geographical concepts, early language development (Listen/Think Series), math (abacus), recorded encyclopedia, Study Through Listening

SHARE: Will contribute as far as production and distribution specifically re: blind
has good rapport with schools in that area and in Canada; can help with field sites
have bibliography on listening skills - only in area of blindness though
help with research

NEED: format for search

WISCONSIN: (McCarthy)

mental retardation is primary interest
locate materials suitable for severely retarded which could also be of concern for auditory
will accept information for reference file which will be obtained through minimum of effort
won't purchase very many items

SHARE: test sites
will do formative evaluation and a little bit of field testing

NEED: conceptualization of problems

NATIONAL CENTER: (Ewing)

will stimulate and cooperate with the consortium
don't want to duplicate efforts
their projects are concerned with the following:

1) needs assessment
2) commercial producers file
3) field test criteria and sites
4) thin market production and distribution
5) materials evaluation
    panel coming in to set up evaluation criteria
    will go over only materials that they have
6) subcontracts
7) external/internal auditors
8) teacher competency
9) improvement of communication efforts
10) information delivery system

have a list of all Network produced child-use materials

(Cotzin)

expanding producers guide
will help with problems in adapting materials (copyright informaton, legal consultation)
Will serve as input channel on materials for kids
Will give expertise and work cooperatively to accomplish goals of Consortium
When giving tasks, though, N.C. should go last
Consortium can tap their resources; they will help and assist but not do anything specific. Will work in whole area with Consortium.
Consortium will act as springboard for activities going on at N.C.
Will help market
N.C. is developing evaluation criteria for readers of materials they've collected now.
Dissemination of final products coordinated by N.C.
N.C. can provide information on what Center has what material and who has judgmental evaluative material on that material already; preliminary search lists will be sent to N.C. for that information.

MSU: (Carlson)

"Sounds and Images", for creative or gifted, used for MR
try other types of format for interest
1) some things aren't on remedial tracks
2) can be adapted--does relate to other target areas

(Levine)

1) searching - auditory advantaged - file of materials
2) field testing - Network Evaluation Committee - sites in Mich. and beyond, available materials
3) modify available materials; interactive vs. passive
4) new formats: simulation, compressed speech, expanded speech, games (6 defined formats)
not test content as much as format; viability of format
5) content oriented base material in specific area

NEED: help in examining what is available
field testing

VI. TASKS AND TIME LINE

1. Sabatino will send Glossary of terms to other members of Consortium by 7/27/73 for revision and inclusions. Must get agreement and closure on this material before next meeting. This will be working vocabulary, not descriptor list.

2. Give definition by Center of specific areas for search

Ill., APHB - visual handicapped
Wis., Ky. - mental retardation
Nebr. - deaf
MSU - physical handicapped, and misc.

what is meant by auditory materials?
what should be included in basic search?
criteria - what is to be included and what isn't to be included?
broad categorization with limits

by 9/15/73

3. Search to build total catalog. MSU will phone each Center to sub-divide and assign sources according to interest. Search conducted by Ill., APHB, Ky., Wis., Mich.

Illinois needs search material before rest of centers
Material will be to Ill. by 11/15 (what is available at that time)

Search completed - 3/15/74
Camera ready - 4/15/74

FUTURE MEETINGS:

Meeting last of November to discuss long range objectives of Consortium, and operational hassles, hang-ups and happy hopes on the search tasks.

Preliminary sharing of lists on 1/15.

PRODUCT 1: Preliminary catalog to be published and disseminated

MISC. Hugh Summers will represent Consortium at meeting in Washington on July 27, 1973.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward
515—353-7836

PRELIMINARY DECISION MAKING--BASED IN PART ON THE DISCUSSIONS AND SMALL GROUP WORK AT CHICAGO, JULY, 1973

PRODUCT 1: THE CATALOG OF AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED.

1. What purposes should the catalog serve?

   a. Decision making--presenting alternatives for practitioner

   b. Discrepancy model to show alternatives for instruction and gaps that exist, to be useful in determining needs for new auditory materials.

Amplification of #1:

For SEIMCs, Associate Centers, local directors, and teachers to:

--identify available auditory learning materials/techniques

--determine feasibility of "goodness of fit" of materials for specific use

--provide purchase information

--author's objectives

--level of use

--type of learning problem to interact with

To be developed on basis following:

--provide comprehensive list of available auditory learning materials and current teaching techniques to enable awareness of availability

--reveal gaps in available materials

--reveal concentrations of materials

--stimulate specific ideas, creative approaches to materials development

--suggest potential producers and distributors of Consortium products

--suggest potential designers of materials

Guidelines:

- --a first approximation, not a finished revision
- --it represents only accumulation to present
- --only child-use materials

Long range purposes of catalog:

- --attention getting device for qualitative analysis
- --stimulation for professional development

2. What sorts of materials should it include?

   a. teaching materials

   b. auditory skill development materials and teaching equipment

   c. other skill equipment with auditory input

To include all available materials in which listening skills or their application are primary parts.

"Available" is defined as published material (can be procured by standard purchase order procedures)

For now the catalog is to be limited to U.S. and Canadian publications.

A subsequent series of annex catalogs are anticipated. Topics to be represented in this later project:

- --research-based materials and procedures, not published
- --teacher-made materials, not published
- --out-of-print materials promising for reconsideration or adaptation
- --materials wherein auditory learning is secondary.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515-353-7836

October 19, 1973

MEMORANDUM

TO: Network Units Collaborating in the Consortium on Auditory Learning Materials

FROM: Ted Ward

SUBJECT: November Consortium Meeting

Please reserve Friday, November 9, 1973, for the next meeting of the Consortium on Auditory Learning Materials for the Handicapped. The meeting will be held from 9:00 AM to 4:00 PM at the O'Hare International Tower Hotel at O'Hare Airport, Chicago, Illinois. (The same place as our last meeting.)

If travel plans necessitate your arrival in Chicago on Thursday evening, we are asking you to make your own reservations at the O'Hare International Tower and submit your expenses to our office. Because the Tower has offered us a special rate, please be sure to refer to the Consortium on Auditory Learning when making any reservations at the Tower. You may contact the Tower by calling (312) 686-8000, or by writing:

O'Hare International Tower
P.O. Box 66414
O'Hare Airport
Chicago, Illinois 60666

Within the next day or two you will receive the first of a series of Audio Newsletters from the Consortium. This first Audio Newsletter addresses itself to the topic of classifying auditory instructional materials. Accompanying the Audio Newsletter is a copy of a form to be used for classifying auditory materials as well as other documentation relating to the topic of classification. This will be a major agenda item for the November meeting.

When you arrive at the Tower, check the meeting room guide for the Consortium's meeting room. We are looking forward to seeing you all in Chicago.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

A G E N D A

INTRODUCTION	9:00 - 9:15 a.m.
GLOSSARY	9:15 - 10:00 a.m.
THESAURUS	10:00 - 11:00 a.m.
SYSTEM INPUT	11:00 - 12:00 noon
LUNCH (Room to be announced)	12:00 - 1:00 p.m.
SYSTEM OUTPUT	1:00 - 2:00 p.m.
MEMBER UNIT ACTIVITIES	2:00 - 3:00 p.m.
POLICY ISSUES	3:00 - 4:00 p.m.

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CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

SUMMARY OF PROCEEDINGS

Chicago O'Hare International Tower
November 9, 1973

I. CONSORTIUM MEMBERS PRESENT

Dr. Robert Stepp, Midwest Regional Media Center for the Deaf

Ms. Margaret Niederer, Illinois Instructional Materials Center, Office of the Superintendent of Public Instruction

Mr. Carl Oldsen, CEC Information Center on Exceptional Children

Dr. Carson Nolan, American Printing House for the Blind

Dr. James McCarthy, University of Wisconsin, Special Education Instructional Materials Center

Dr. Ted Ward, Consortium Coordinator, Great Lakes Region SEIMC, Michigan State University

Mr. S. Joseph Levine, Great Lakes Region SEIMC

Mr. William Anderson, Great Lakes Region SEIMC

II. INTRODUCTORY DISCUSSION

A. Cumulative Papers - Notebook will be used as a central clearinghouse for correspondence and publications of the Consortium. At least one notebook will be sent to each Consortium member. Notebook will be used as discussion guide for today's meeting.

B. Next meeting tentatively set for first Tuesday or Thursday in February.

C. M. Niederer expressed her appreciation of the Consortium's Audio Newsletter and progress so far towards its stated goals.

D. T. Ward stated Consortium's interest was in content issues, not format issues in the development of its auditory learning catalog.

III. GLOSSARY DISCUSSION (Agenda Item II)

--Glossary is attempt to create a common way to express what we are doing. D. Sabatino's glossary was used for discussion purposes at the meeting. C. Oldsen reported his attempt to incorporate Sabatino's glossary terms into the CEC ERIC Thesaurus.

--A definition problem arose over the difference between the terms listening and auding. J. Levine volunteered to create two definitions for input to the glossary. J. Levine will also compile bibliography on auding.

--J. McCarthy suggested inclusion of terms from all Consortium members be added to glossary:

1. J. McCarthy to submit one page paper on description of Auditory Learning and the Mentally Retarded.
2. C. Nolan to submit description on Auditory Learning for the Visually Handicapped.
3. N. Carlson (GLRSEIMC) to submit description on Auditory Learning and the Physically Handicapped.
4. J. Fleming (GLRSEIMC) to submit description of Auditory Learning and Learning Disabilities.
5. J. Crane (Ill.) to submit description of Auditory Learning and the Emotionally Disturbed and Affectively Handicapped.
6. J. Crane will also prepare description of Music Therapy as an Auditory Learning Task.

--Change Advantage to Advantaged Instruction.

--M. Niederer will send definitions that correspond with the Illinois input form.

--D. Sabatino will be contacted to provide a definition of Auditory Reception.

--Confusion over distinction between Commercially and Non-Commercially Available Materials. Are SEIMC materials commercially available? It was suggested to recreate definitions and establish varying levels of availability. J. Levine will work on repair of these definitions and submit to Consortium.

--J. McCarthy suggested adding distinction between identification information and classification information. J. Levine will make available definitions from Sourcebook on Evaluation.

--J. McCarthy suggested Sabatino consider changing Linguistics to Linguistically Based Materials.

--R. Stepp suggested revising Instructional Maintenance. J. Levine will revise in terms of advantaged instruction.

--Definition of Non-Verbal Auditory Material is presently unclear. T. Ward suggested revision from Sabatino.

--Definition of Primary and Secondary Sensori-Perceptual Mode should be revised. Revisions should represent all possible combinations of inputs. J. Levine will work on revisions.

--Suggested that "accurate and rapid" be dropped from definitions of Auditory Perception.

IV. THESAURUS DISCUSSION (Agenda Item III)

--C. Oldsen reported Thesaurus Committee has revised CEC/ERIC Thesaurus to include instructional materials terms. Latest revisions will include only those terms for instructional materials. "Professional terms" will be input to ERIC Thesaurus. Instructional materials terms are not official ERIC descriptors at this point.

--C. Oldsen suggested rapid closure on Consortium glossary so that those terms can be included in latest edition of Instructional Materials Thesaurus.

--T. Ward suggests trusting work done by CEC/ERIC in conjoint with the task force to be taken in total as our frame of reference.

--Question: Does Consortium want to go with a common classification frame and if we go with a common classification frame do we want to go with CEC/ERIC? Agreement was on common frame and use of CEC ERIC Thesaurus.

--Suggested to draft a statement of what is meant by ERIC CEC compatibility, but using ERIC CEC as the arbiter? Are they ERIC terms? Why not? Is this best we can develop? This statement would be included at front of the catalog.

V. SYSTEM INPUT (Agenda Item IV)

--C. Oldsen reported task force changes in NIMIS Master Record Form:

Elements 1 - 10: Same
Element 11 : Local Source (where to borrow it)
Element 12 : Descriptors
Element 13 : Abstract/description
Element 14 : Instructions
Element 15 : Comment field
Element 16 : Reported evaluation data

Revisions pose no problems in compatibility with Consortium Input Form (A). Some minor re-numbering on Form A will have to take place.

--Can Consortium members show transferability between Consortium Form A and their input forms? Should be able to locate (hopefully) all sixteen elements on NIMIS Master Record on local input forms.

--J. McCarthy suggested taking two materials and circulating them to Consortium members doing inputing and have them use their present classification sheet to classify the materials and send to the Consortium and let them assess what items are missing. J. Levine said he will take care of circulating materials.

--Summary: Consortium more interested in content than format. NIMIS Master Record form will serve as minimum information input; anyone can add what information is necessary to operate at local level. Also, non-numbered items on Consortium Form A comply with classification information contained in the Sourcebook on Evaluation developed by Network Evaluation Committee (See attached Table I from Sourcebook).

VI. SYSTEM OUTPUT (Agenda Item VI)

--What should catalog look like? J. McCarthy stated ideal would be on-line computer system. T. Ward suggested because we are dealing with a prototype, we should concentrate on some type of paper system.

--R. Stepp suggested developing catalog output form to be same or very similar to input form.

--C. Nolan proposed doing an examination of different catalog output formats and select best of each via ranking system.

--T. Ward stated GLRSEIMC would create two to three different output formats. These would be explained in a future Audio Newsletter. Each Consortium member would share catalog output formats with staff and teachers and have recommendations prepared for final catalog output format by February Consortium meeting.

VII. MEMBER UNIT ACTIVITIES (Agenda Item VII)

--Each Consortium member present reviewed his Center's proposal and explained status of each goal along with the project leaders. This information will be used to revise the member unit activities list in the Cumulative Papers Notebook.

TABLE 1

Suggested Items for the Identification and Classification of Instructional Materials and Media

Identification	Classification
National #	Chronological age
Local #	Content
Title	Curricular function
Journal	Description
Series title & number	Educational (instructional) level
Author	Equipment needed
Publication date	Group setting
Form Designation	Interest level
Price	Learner Skills
Date recorded	Organization
Source (Nat'l)	Physical characteristics
Source (local)	Procedure
Location	Purpose (Objective)
Availability	Storage
Category	Supplemental activities
	Teacher manual
	Time needed
	Training needed

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

January 9, 1974

MEMORANDUM

TO: Network Units Collaborating in the Consortium on Auditory Learning Materials for the Handicapped

FROM: Ted Ward

SUBJECT: Next Consortium Meeting

Because of a conflict with the deadline for submitting proposals for FY 74-75, the next meeting of the Consortium on Auditory Learning has been postponed until Thursday, March 7, 1974. Please circle that date on your calendar.

The meeting will be held again at the O'Hare International Tower Hotel at O'Hare Airport, Chicago, Illinois, from 9:00 A.M. to 4:00 P.M. If travel plans necessitate your arrival in Chicago on Wednesday evening, we are asking you to make your own reservations at the O'Hare International Tower and submit your expenses to our office. Because the Tower has offered us a special room rate, please be sure to refer to the Consortium on Auditory Learning when making any reservations at the Tower. You may contact the Tower by calling (312) 686-800 or by writing:

O'Hare International Tower
P.O. Box 66414
O'Hare Airport
Chicago, Illinois 60666

You will be receiving the third issue of the Audio Newsletter shortly. The major topic of discussion will be the creation of an output or catalog format for the Consortium's catalog of auditory learning materials. You will also receive further details of the next Consortium meeting.

When arriving at the Tower in March, check the meeting room guide or ask at the front desk for the Consortium's meeting room. We are looking forward to seeing everyone in Chicago in March.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

AGENDA

1. GLOSSARY - a final review of existing terms and the addition of new terms.

2. "AUDITORY INSTRUCTION" PAPERS - a sharing of brief papers to explain the use of auditory instruction with handicapped children.

3. MEMBER UNIT ACTIVITIES - an update on the activities of Consortium members.

4. SYSTEM INPUT - an explanation of procedures to classify (input) auditory learning materials.

5. SYSTEM OUTPUT - the creation of an output format for the Consortium Catalog of auditory learning materials.

6. AUDITORY LEARNING PAPERS - a call for papers on auditory learning and auditory learning materials to be published by the Consortium.

7. AUDIO NEWSLETTER - feedback.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward
515—353-7836

SUMMARY OF PROCEEDINGS

Chicago O'Hare International Tower
March 7, 1974

I. CONSORTIUM MEMBERS PRESENT

Dr. Robert Stepp, Midwest Regional Media Center for the Deaf

Ms. Bobbie Cheney, Illinois Instructional Materials Center, Office of the Superintendent of Public Instruction

Mr. Carl Oldsen, CEC Information Center on Exceptional Children

Dr. Aleki Nickles, National Center for Educational Media and Materials for the Handicapped

Mr. Sidney Miller, National Regional Resource Center of Pennsylvania

Dr. James McCarthy, Special Education Instructional Materials Center, University of Wisconsin

Dr. S. Joseph Levine, Great Lakes Region SEIMC

Dr. Ted Ward, Great Lakes Region SEIMC

Mr. William Anderson, Great Lakes Region SEIMC

II. GLOSSARY DISCUSSION

--This is a final attempt to revise terms to provide us with a common professional language for auditory learning.

--We have already received help from other units.

--S. Miller raised questions about operational definitions and parameters of terms. Requested "observables." Gets away from dictionary concept and goes beyond scope originally established for glossary.

--S. J. Levine explained revised versions of terms "commercially available" and "non-commercially available."

III. AUDITORY INSTRUCTION PAPERS

--Brief papers explaining the use of auditory instruction with handicapped children assigned during the last meeting were reviewed for inclusion in the notebook.

--Speech pathology suggested as a possible omission. Discussion on the matter concluded it was not a distinct category similar to the others.

--Purpose of papers is to identify areas where auditory instruction can be used and in what ways with handicapped children.

--It was decided that present categories were sufficient. It was also suggested that the reports be prefaced with a short header identifying the advantaged learner vs. the disadvantaged learner.

IV. MEMBER UNIT ACTIVITIES

--Each member unit reported its activities during the three months period from the last Consortium meeting. Those units who submitted proposals for FY 74-75 briefly explained their plans.

--T. Ward suggested that those units who are submitting descriptions of auditory learning materials for the Consortium catalog can receive assistance from the Consortium. There are funds established to input materials information from other units.

--S. J. Levine circulated copies of the GLRSEIMC preliminary field test findings and the field testing process. Also circulated were copies of an auditory design guide to assist in the development of materials for auditory advantaged learners.

V. SYSTEM INPUT

--Most decisions for input have already been made at previous Consortium meetings.

--These procedures should not be changed at this time.

--Discussion on system input reviewed the existing input system. Handouts were circulated of system input form and procedures.

--ERIC compatibility was reemphasized for interface between the Consortium and ERIC.

--Illinois agreed to reorganize their materials form to conform to the Consortium.

--Consortium members were reminded of financial and human assistance available from the Consortium to make sure all relevant materials identified by member units are input for inclusion in the Consortium catalog.

VI. SYSTEM OUTPUT

--The results of a preliminary survey to determine the format or page layout of the Consortium catalog was compiled. Member units selected a format which utilized a picture of the auditory learning material as well as relevant classification information.

--There was some concern voiced by Consortium members as to whether the format selected was chosen because it was attractive visually or whether it did in fact contain the most appropriate pieces of information.

--It was decided to conduct another survey of member units to select a format from a variety of prototypes utilizing a picture and classification information. Michigan State's GLRSEIMC will have responsibility for generating prototypes and conducting the survey.

VII. AUDITORY LEARNING PAPERS

--The Consortium issued a call for papers on auditory learning in an attempt to increase the amount of scholarly information available on the subject area. The papers will be combined into a monograph series and distributed within the Network.

--A "Call for Papers" flyer was distributed to Consortium members, to network units, and at CEC-New York.

VIII. AUDIO NEWSLETTER

--Consortium members were asked to respond to the efficacy of the cassette "Audio Newsletter" distributed to Consortium members as a means of keeping them informed of Consortium activities.

--All members said they found the approach unique and useful. The technique utilizing rate altered speech to cut listening time was identified as perhaps the most useful attribute of the newsletter approach.

--Some members commented they found the inclusion of visual stimuli to accompany the audio message helpful.

--To summarize, feedback was positive and it was suggested that should the Consortium continue, the audio newsletter would be a viable communications device.

The **Consortium on Auditory Learning Materials for the Handicapped** is preparing a series of professional monographs for national distribution on the use of auditory instruction with handicapped learners. This series of monographs will represent one facet of the **Consortium**'s efforts to introduce educators to the effective utilization of instructional techniques and materials that call upon the auditory modality. The **Consortium** invites interested educators to submit papers to be considered for this monograph series.

call for papers

WHAT IS MEANT BY AUDITORY LEARNING? Many handicapped children learn best through their ears. The obvious example is that of the blind child and his dependence on the auditory mode as the most efficient means of receiving information. However, other handicapped children, those that are referred to as "auditory learners", can also learn most efficiently in this manner. For these auditory learners it is important to understand their capabilities and the types of instruction that can capitalize on these auditory capabilities.

WHAT PAPERS WILL BE CONSIDERED? All papers that are submitted must relate specifically to the topic of auditory instruction. Possible topic areas can include but are not limited to:

Innovative designs for instruction through auditory materials.
The role of auditory instruction with handicapped children.
Classroom procedures for using auditory-based instruction.
Systems for evaluating the effectiveness of auditory learning materials.
Identifying auditory learners.
Characteristics of auditory presentation equipment that enhance the learning environment.
Using auditory learning materials with specialized audiences.

Papers may deal with theoretical issues, research results, or practical applications. However, papers should not deal with topics directly related to auditory perception and the development of auditory perceptual abilities.

The Consortium on Auditory Learning Materials for the Handicapped was established in an attempt to tie together those federally funded projects that have a common interest in auditory learning with handicapped children. Activities of the Consortium include the development of procedures for identifying and classifying auditory instructional materials, the production of catalogs and indices of available auditory instructional materials, the design and evaluation of auditory instructional materials, and other project activities related to auditory learning. **Members of the Consortium** include projects at American Printing House for the Blind/University of Northern Colorado/Illinois Instructional Materials Center/University of Nebraska/New Mexico State University/University of Oregon/Pennsylvania State University/University of Wisconsin/Ohio State University/Michigan State University.

SPECIFICATIONS FOR THE SUBMISSION OF PAPERS

1. All papers should be typewritten, double spaced.
2. An abstract or summary of the paper should be included.
3. Author's name, job title, business address, and phone number should be included.
4. Papers should be no more than 32 pages in length (including all charts, pictures, or illustrations).

DEADLINE FOR SUBMISSION: May 15, 1974 All papers and inquiries should be directed to:

Dr. Ted Ward, Coordinator
Consortium on Auditory Learning Materials for the Handicapped
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824
Telephone: (517) 353-7836

SECTION FOUR

AUDIO NEWSLETTER

As a means of communicating with Consortium members, an "Audio Newsletter" cassette was prepared and distributed to members three times during the project year. Topics of the newsletter were related to Consortium activities and work assignments, and to the general topic of auditory learning.

All newsletter cassettes were rate compressed and were accompanied by relevant handout and survey forms. This section of the report contains materials accompanying the newsletters listed below.

Topics for the newsletters are as follows:

Volume I, Number I: "A Classification System For Auditory Learning Materials."

Volume I, Number II: "Consortium Meeting Postscript," "Auding Vs. Listening," and "Compressed Speech."

Volume I, Number III: "Auditory Materials Catalog Survey," and "Sub-Channel Radio."

A

IDENTIFICATION INFORMATION

I. National Identification Number______(1)*

Title:____(2)

Series Title:______________(3-4)Series Number:______________(4)

Author(s):______________(5)Publication/Copyright Date:______________(6)

National Source:____(10)

Address:____(10)

Price:______________(9)Catalog Date:______________(9)

CEC ERIC Descriptors (use thesarus)______________________(11)

PLEASE USE DESCRIPTORS TO COMPLETE THIS FORM

II. Classification

Educational Information

Primary Mode-input______________Secondary______________

Method of Output____

Area of Focus:____

Pre-requisite Skills____
(at least one descriptor from each of group A & group B)

Descriptive Comments____(12 &14)

____

Use: Instructional Level______________Minimum CA______________

Interest Level______________Minimum MA______________

Audio Presentation Method ______________ Child-use_____ Teacher-directed_____

Materials Use Instructions: Teacher's Manual yes_____ no_____

Objectives Presented____

___Cognitive ______________________________

___Phychomoter ______________________________

___Affective ______________________________

Follow-up Activities:
Teacher directed required_____ suggested_____ none_____
Child-use required_____ suggested_____ none_____

Lessons (check one) singular_____ multiple_____ sequential_____

Approximate time per lesson______________Total number of lessons______________

Setting(s) individual_____ small group_____ large group_____

Special Features of Materials______________________________(13)

____

USE DESCRIPTORS!!

Equipment Information

Equipment needed____(8)

Audio format (cassette, records, etc.)______________________________

How many of each? ______________________________

Time per cassette, record, etc. ______________________________

Special features of equipment ______________________________

*Numbers indicate parallel item on NIMIS
Master Record form

Classified by______________________________

CLASSIFICATION DESCRIPTORS

1) PRIMARY MODE - INPUT
   - Auditory (presumably this will be it)
   - Visual

2) SECONDARY MODE - INPUT
   - Auditory
   - Visual
   - Tactile
   - Kinesthetic

3) METHOD OF OUTPUT
   - Verbal communication
     - -one word
     - -phrases
     - -paragraph or story format
   - Manual expression
     - -pencil & paper
     - -manipulative materials
   - Tactile
   - Kinesthetic
     - -dramatic play
     - -other bodily movement response

4) PREREQUISITE LEARNER SKILLS
   - Group A
     - Expressive language
       - -one word
       - -phrases
       - -paragraph
     - Manual abilities
       - -pencil & paper
       - -ability to turn pages
       - -ability to point
     - Gross motor skills
       - -ability to move about room (mobility)
       - -muscular strength
     - Visual acuity
     - Visual perceptual skills
     - Knowledge of equipment utilized
   - Group B
     - Abstract reasoning
     - Sequencing
     - Logical thinking
     - Auditory memory
     - Math
       - -readiness
       - -simple facts (addition & subtraction)
       - -advanced addition and subtraction
       - -multiplication
       - -division
       - -algebra
       - -trigonometry
     - Alphabetizing
     - Library skills
     - Reading skills
       - -reading readiness
       - -primary A (grade 1)
       - -primary B (grades 2 & 3)
       - -elementary (grades 4-6)

5) AREA OF FOCUS
   - Gross Motor (basic skill)
   - Fine Motor (basic skill)
   - Listening (basic skill)
   - Auditory Discrimination (basic skill)
   - Auditory Perception (basic skill)
   - Self-care skills (basic skill)
   - Mathematics (cognition)
   - Reading (cognition)
   - Communication skills (cognition)
   - Literature (cognition)
   - Music (cognition)
   - Vocational Education (cognition)
   - Safety Education (cognition)
   - Science (cognition)
   - Social Studies (cognition)
   - Career Education (cognition)

6) INSTRUCTIONAL LEVEL
   - Pre-school
   - Primary (grades 1-3)
   - Intermediate (grades 4-6)
   - Advanced (grades 6-12)

7) INTEREST LEVEL
   - Pre-school
   - Elementary
   - Adolescent
   - Combination of 2 (indicate)

8) PRESENTATION METHOD
   - Conversation
   - Dramatization
   - Direct Information
   - Storytelling
   - Simulation
   - Drill
   - Interview
   - Other

9) EQUIPMENT NEEDED
   - Reel-to-reel tape recorder
   - Cassette recorder
   - Audio tape
   - Tape cassettes
   - Phonographs
   - Paper/Pencil
   - Braille writing device
   - Manipulative material
   - Filmstrip projector
   - Opaque projector
   - Earphones
   - Extension cord
   - Other

10) RECORDS FORMAT ALTERNATIVE
   - Monaural or Stereo phonograph record
   - Record speed: 78,45,33-1/3 or 16 r.p.m.
   - Record size: 12", other

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CH ACC. NO.	P.A.	PUBL. DATE 64	ISSUE

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LEVEL OF AVAILABILITY I ☐ II ☐ III ☐

AUTHOR
Parker, Don

TITLE
SRA READING LABORATORY IIIA.

C

SOURCE CODE

INSTITUTION (SOURCE)

SP. AG. CODE

SPONSORING AGENCY

EDRS PRICE 0

CONTRACT NO.

GRANT NO.

REPORT NO.

BUREAU NO.

AVAILABILITY Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611 ($79.34).

JOURNAL CITATION

DESCRIPTIVE NOTE

DESCRIPTORS
LANGUAGE ARTS; READING; PRIMARY GRADES; GRADE 3; GRADE 3(1); GRADE 3(2); INTERMEDIATE GRADES; GRADE 4; GRADE 5; GRADE 6; JUNIOR HIGH SCHOOL; GRADE 7; GRADE 8; GRADE 9; SENIOR HIGH SCHOOL; GRADE 10; GRADE 11; SELF CHECKING MATERIALS; COLOR KEYED MATERIALS; WORD STUDY SKILLS; READING COMPREHENSION; SUPPLEMENTARY READING; DEVELOPMENTAL READING;

IDENTIFIERS

ABSTRACT

SRA Reading Laboratory IIIa contains materials color-coded for reading levels 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, and 11.0. These boxed materials include Power Builders with Answer Keys and Rate Builders for each teaching level, 20 Rate Builder Key Booklets, one Teacher's Handbook with Listening Builder Selections, one Student Record Book, and colored pencils for students to chart their progress. The publishers state that Power Builders are durable, four-page reading selections that help students develop vocabulary, comprehension, and word attack skills. From 12 to 20 selections are provided at each reading level. Subject matter includes biography, social studies, natural science, adventure, and everyday life. Power Builders also include comprehension checks and exercises for developing vocabulary and skill in phonetic and structural analysis of words. The publishers also state that Listening Skill Builders are included in the Teacher's Handbook to develop pupils' ability to understand and retain what they hear. The teacher reads listening selections, and students answer comprehension questions in their record books. Rate Builder cards are presented to develop speed and concentration. Each card includes a short reading selection followed by comprehension questions to be answered in the Student Record Book. The teacher limits reading and answering time to 3 minutes. Students check their responses with the Rate Builder Key Booklet. (VR)

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AUTHOR

TITLE
DISCOVERING OPPOSITES.

SOURCE CODE	INSTITUTION (SOURCE)
SP. AG. CODE	SPONSORING AGENCY

EDRS PRICE	CONTRACT NO.	GRANT NO.
0		

REPORT NO.	BUREAU NO.

AVAILABILITY Instructo Products Company, 6135 North 55th Street, Philadelphia, Pennsylvania 19131 ($3.95).

JOURNAL CITATION

DESCRIPTIVE NOTE

DESCRIPTORS
READINESS LEVEL; PRIMARY GRADES; LANGUAGE DEVELOPMENT; VISUAL DISCRIMINATION; CONCEPT FORMATION; CARDS; INSTRUCTIONAL KITS

IDENTIFIERS

ABSTRACT
Discovering Opposites is a boxed set of materials designed to provide opportunities to develop the ability to recognize, discriminate, and classify opposite concepts. The publishers state that the kit promotes learning associated with language and social development and reading readiness skills as pupils work together using the activity kit and sharing the product of their work with their classmates. The materials may also be used for individual instruction. The kit contains eight 8 1/2- by 11-inch opposite concept cards (in/out, up/down, big/little, and under/over; hot/cold, happy/sad, on/off, and dirty/clean); six full color picture cards for each of the eight opposite concept cards, or a total of 48 picture cards; opposite word cards to provide reading vocabulary reinforcement; and a teacher's information sheet. The full color key pictures at the top of each 8 1/2 by 11 base card illustrate an opposite concept, and pupils complete the card by identifying and matching six additional illustrations of the same opposite concept and placing them on the base card. These additional picutre cards are coded by the following shapes to help the pupil relate them to the appropriate base card: parallelogram, oval, rectangle, trapezoid, square, hexagon, triangle, and circle. The use of the opposite word cards is optional according to grade level. The 9- by 11 3/4-inch storage kit is plastic. (VR)

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AUTHOR

TITLE

WOLLENSAK 1500 SS TAPE RECORDER.

SOURCE CODE	INSTITUTION (SOURCE)
SP. AG. CODE	**SPONSORING AGENCY**

EDRS PRICE	CONTRACT NO.	GRANT NO.
0		

REPORT NO.	BUREAU NO.

AVAILABILITY Revere-Mincom Division, 3M Company, 1750 Pennsylvania Avenue, Washington, D.C. 20006 ($184.95).

JOURNAL CITATION

DESCRIPTIVE NOTE

DESCRIPTORS

EQUIPMENT; TAPE RECORDINGS; AUDITORY PERCEPTION; LISTENING SKILLS

IDENTIFIERS

ABSTRACT

The Wollensak 1500 SS Tape Recorder is used as audiovisual equipment with pre-recorded and self-made tapes for any curriculum areas such as language development, speech correction, reading instruction, and mathematics. It is a two-track, monophonic solid state tape recorder, 6 1/2 inches by 10 1/4 inches by 11 3/4 inches, weighing 18 1/2 pounds. Recording and playing speeds are at 3 3/4 and 7 1/4 I. P. S.; the keyboard has "stop," "play," and "record" buttons; a fast foward and rewind switch is provided. The recorder contains provisions for monitory and public address use. A microphone and patch cord are included as standard equipment. Two of these recording units can be patched together for duplicating tapes. (LS)

NIMIS Master Record

Field 1 - Unique national system identification symbol to be assigned by a national authority.

Field 2 - Title, (including sub-title and/or alternative forms, such as inversions, acronyms), Edition data.

Field 3 - Aggregate, whole from which material is taken, to identify a portion of a material.

Field 4 - Series, title and number.

Field 5 - Author(s), last name, first name, up to two authors, if more than two list as "and others."

Field 6 - Publication date, Copyright date.

Field 7 - Form designation, physical description, piece-page count, time, from authority list category and alternate forms designation.

Field 8 - Equipment, material required (borrower must know what is needed to use material).

Field 9 - Catalog price and catelog date.

Field 10 - National source of supply includes address, OR delivery system entry code OR not available.

Field 11 - Descriptors from TSIMDSE authority lists.

Field 12 - Abstract/description, not to include information found in previous fields.

Field 13 - Instructions for use of material.

Field 14 - Comment field (cautionary) not to include evaluative data.

Field 15 - Photograph(s)

Field 16 - Reported evaluation data and currency data as available.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward
515—353-7836

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The following pages comprise the second draft copy of possible descriptors for use with the NIMIS Master Record, as developed by the CEC-ERIC Information Center.

The numbers following each descriptor refer to general categorical headings found in the Instructional Materials Thesaurus for Special Education (April, 1973).

1. Exceptionalities and Dysfunctions
2. Special Health Problems and Diseases
3. Human Development
4. Environmental Influences
5. Groups and Organizations
6. Learning
7. Cognitive Processes
8. Behavioral Terms
9. Tests and Evaluation
10. Prevention, Remediation and Therapy
11. Sensorimotor Skills
12. Skills
13. Curricular Terms
14. Instructional Approaches to Teaching Methods
15. Instructional Materials
16. Equipment
17. Form or Format-Non Print
18. Form or Format-Print
19. Educational Levels
20. Educational Programs
21. Facilities
22. Administrative Terms
23. Personnel
24. Professional Subjects and Research Terms
25. Employment

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Bureau of Education for the Handicapped—U.S. Office of Education—An equal Opportunity Employer

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1   ABBREVIATIONS                                         13
3   *ABILITY TESTS
2       USE $PERFORMANCE $TESTS.
1   ABSTRACT REASONING                                    07
2       THE ART OF ARRIVING AT CONCLUSIONS THROUGH
4       THE USE OF SYMBOLS OR GENERALIZATIONS
4       RATHER THAN CONCRETE FACTUAL INFORMATION.
3   *ACCIDENT PREVENTION
2       USE $SAFETY $EDUCATION.
1   ACHIEVEMENT TESTS                                     09
1   ACTIVITY BOOKS                                        18
2       TEACHER MATERIALS CONTAINING SUGGESTED CLASSROOM
4       ACTIVITIES.
4       SEE ALSO $CLASS $ACTIVITIES.
1   ADAPTIVE DEVICES
1   ADDITION                                              13
3   *ADULT EDUCATION
2       USE $BASIC $ADULT $EDUCATION.
1   ADVENTURE STORIES                                     18 16
3   *AFFECTION
2       USE $EMOTIONAL $ADJUSTMENT.
3   *AGGRESSION
2       INCLUDES ACTING OUT BEHAVIOR. USE $EMOTIONAL $ADJUSTMENT.
1   AGRICULTURE                                           13
1   ALCOHOLISM                                            02 13
3   *ALEXIA
2       USE $APHASIA.
1   ALGEBRA                                               13
1   ALPHABETIZING SKILLS                                  13
1   ALPHABETS                                             13 15 17
2       SEE ALSO $INITIAL $TEACHING $ALPHABET.
1   AMERICAN HISTORY                                      13
1   ANATOMY                                               13
2       SEE ALSO $PHYSIOLOGY.
1   ANIMAL STORIES                                        15 16
1   ANIMALS                                               13
1   ANTHOLOGIES                                           16
2       INCLUDES COLLECTIONS OF READINGS. SEE
4       ALSO $LITERATURE, $ADVENTURE $STORIES, $MYSTERY
4       $STORIES, AND $POETRY.
1   ANTONYMS                                              13
3   *ANXIETY
2       USE $EMOTIONAL $ADJUSTMENT.
1   APERTURE CARDS                                        15 17
2       CARDS WITH OPENINGS DESIGNED FOR MOUNTING OF
4       MICROREPRODUCTION ON FILM. SEE ALSO $MICROFORMS.
1   APHASIA                                               01 02
2       INABILITY TO COMPREHEND OR PRODUCE WORDS
4       DUE TO BRAIN DAMAGE.
4       SEE ALSO $LANGUAGE $HANDICAPS.
1   APPLICATION FORMS                                     13 15 25
1   APTITUDE TESTS                                        09
2       SEE ALSO $INTEREST $SCALES AND $VOCATIONAL $APTITUDE.
3   *ARITHMETIC
2       USE $MATHEMATICS.
1   ART                                                   13
2       SEE ALSO $ART $MATERIALS AND $PRINTS, $CRAFTS,
        $FREEHAND $DRAWING, $GRAPHIC $ARTS,
4       $PAINTING, $PHOTOGRAPHY,
4       AND $SCULPTURE.
1   ART PRINTS                                            15
1   ART THERAPY                                           10 14
1   ARTICULATION                                          12
3   *ASSESSMENT
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2       USE $EVALUATION, $MEDICAL $EVALUATION, OR $PERSONALITY
4       $ASSESSMENT.
3   *ASSISTIVE AND ADAPTIVE DEVICES
2       USE ADAPTIVE DEVICES.
1   ASSOCIATION                                           07
1   ASSOCIATION TESTS                                     09
1   ASTRONOMY                                             13
1   ATTENTION SPAN                                        08 11
1   ATTITUDE TESTS                                        09
1   ATTITUDES                                             09 08
2       SEE ALSO $DISCRIMINATORY, $EMPLOYER,
2       $PUBLIC, $RACIAL, AND $STUDENT $ATTITUDES.
1   AUDIO EQUIPMENT                                       18
2       SEE ALSO $AUDIOVISUAL AND $HEARING $AIDS, $LOOP
4       $INDUCTION $SYSTEMS, $PHONOGRAPHS, AND $TAPE $RECORDERS.
1   AUDIOTAPES $CLASS $ACTIVITIES.                        15 17
1   AUDIOTAPE FLASHCARDS                                  15 17
2       A CARD TO WHICH A SEGMENT OF MAGNETIC TAPE IS
4       AFFIXED AND WHICH INCLUDES SPACE FOR PRINTED OR
4       BRAILLE MESSAGES OR PICTURES.
1   AUDIOVISUAL AIDS                                      15
2       SEE ALSO $AUDIOTAPE $FLASHCARDS, $CAPTIONED $FILMS,
4       $CAPTIONED $FILMSTRIPS, $CARTOONS, $CHARTS, $GRAPHS,
4       $INSTRUCTIONAL $MATERIALS, $KINESCOPE $RECORDINGS, $KITS,
4       $LANGUAGE $LABORATORIES, $MAPS, $PHONOGRAPH $RECORDS,
4       $PHONOGRAPHS, $PROJECTION $EQUIPMENT, $PROTOCOL
4       $MATERIALS, $REALIA, $SLIDES, $STENCILS, $TACHISTOSCOPES,
4       $TALKING $BOOKS, $TAPE $RECORDERS, $TRANSPARENCIES,
2       $VIDEO $TAPES AND $FILM TERMS.
1   AUDITORY ACUITY                                       03
1   AUDITORY ATTENTION SPAN
1   AUDITORY CLOSURE                                      11
1   AUDITORY DISCRIMINATION                               11
1   AUDITORY FIGURE GROUND DISCRIMINATION                 11
1   AUDITORY IMAGERY                                      07 11
1   AUDITORY MEMORY                                       11
1   AUDITORY MOTOR INTEGRATION
1   AUDITORY PERCEPTION                                   11
2       AWARENESS OF THE ELEMENTS OF THE ENVIRONMENT THROUGH
2       AUDITORY SENSATION.
1   AUDITORY SEQUENCING                                   07 11
2       ABILITY TO IDENTIFY AND ORGANIZE AURAL
4       STIMULI IN A TEMPORAL ORDER.
4       SEE ALSO $AUDITORY $IMAGERY AND $SERIAL $ORDERING.
1   AUDITORY STIMULI                                      06
2       INSTRUCTION WHICH UTILIZES THE LEARNER'S SENSE OF HEARING
2       AS THE PRIMARY SENSORY STIMULUS MODE.
1   AUDITORY TESTS                                        09
2       INCLUDES AUDIOMETRIC TESTS.
1   AUDITORY TRAINING                                     10 11 19
1   AUDITORY VISUAL INTEGRATION                           07 11
3   *AURAL LEARNING
2   USE $AUDITORY $LEARNING.
1   AUTOBIOGRAPHIES                                       15 16
1   AUTOINSTRUCTIONAL DEVICES                             15 16
1   BALANCE                                               11
2       SEE ALSO $KINESTHETIC $PERCEPTION AND $PERCEPTUAL $MOTOR
4       $LEARNING.
3   *BASAL READING SERIES
2       USE $DEVELOPMENTAL $READING.
1   BASE NUMBERING SYSTEMS                                13
1   BASIC ADULT EDUCATION                                 19 20
2       INCLUDES $CONTINUING $EDUCATION AND $ADULT $EDUCATION.
1   BEHAVIOR RATING SCALES                                08 09
2       SEE ALSO $RATING $SCALES.
1   BEHAVIORAL OBJECTIVES                                 08
```

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2      OBJECTIVES INDICATING DESIRED CHANGES
4      IN BEHAVIOR RESULTING FROM LEARNING.
4      SEE ALSO !EDUCATIONAL !OBJECTIVES.
1   BIBLIOGRAPHIES                                     18
    BIBLIOTHERAPY                                      18 19
2      USE OF READING TO PROMOTE MENTAL HEALTH.
1   BILINGUAL EDUCATION                                08
2      ENCOURAGEMENT OF BILINGUALISM THROUGH THE
4      TEACHING OF REGULAR SCHOOL COURSES IN BOTH
4      THE NATIONAL LANGUAGE AND A SECOND
4      LANGUAGE.
1   BIOGRAPHIES                                        17 18
1   BIOLOGY                                            13
2      SEE ALSO !ANATOMY, !BOTANY, !ENVIRONMENTAL !EDUCATION,
4      AND !INSECTS.
1   BLACK HISTORY                                      13
1   BLACKS                                             05
1   BLENDS                                             13
2      SEE ALSO !PHONICS.
1   BLIND                                              01
2      A PERSON WHOSE VISUAL ACUITY IN THE BETTER EYE IS 20/200
4      OR LESS AFTER CORRECTION, OR WHOSE FIELD OF VISION IS
4      RESTRICTED TO AN ANGLE SUBTENDING AN ARC OF 20 DEGREES
4      OR LESS.
4      SEE ALSO !ADVENTITIOUS !BLINDNESS AND
4      !VISUALLY !HANDICAPPED.
3   *BLIND DEAF
2      USE !DEAF !BLIND.
1   BODY IMAGE                                         11
2      CONCEPTUAL REPRESENTATION OF ONE'S OWN BODY
4      DERIVED FROM INTERNAL AND EXTERNAL
       SENSATIONS, EMOTIONS, AND FANTASIES RELATED
4      TO ORIENTATION, MOVEMENT, AND BEHAVIOR.
4     SEE ALSO !SELF !CONCEPT.
3   *BOOKS
2     USE !ACTIVITY, !BRAILLE, !CHILDREN'S, OR
4     !COMIC !BOOKS, !CURRICULUM !GUIDES, !DICTIONARIES,    18
4     !ENCYCLOPEDIAS, !GUIDELINES, !LARGE !TYPE !BOOKS,     18 19
4     !MANUALS, !REFERENCE !MATERIALS, !RESOURCE !GUIDES,
4     !STUDY !GUIDES, !TALKING !BOOKS, !TEACHER !EDITIONS,  20
4     !TEXTBOOKS, !WORKBOOKS, OR !WORKTEXTS.
1   BOTANY                                             13
3   *BOY SCOUTS
2     USE !SCOUTING.
1   BRAILLE                                            16 17
1   BRAILLE BOOKS                                      16 17 18
1   BRAILLE MATERIALS                                  16 17
1   BRAILLE WRITING DEVICES                            16
2     INSTRUMENTS FOR THE PRODUCTION OR EMBOSSING OF BRAILLE
4     DOTS OR RAISED LINE DRAWINGS.
3   *BRAIN DAMAGE
2     USE !MINIMAL !BRAIN !DYSFUNCTION.
1   BUSINESS EDUCATION                                 13
1   CALENDARS                                          13 15
2     SEE ALSO !SEASONS, !TIME !PERSPECTIVE, AND !TIME
4     !TELLING.
1   CAMPING                                            13
1   CANES                                              16
      SEE ALSO !MOBILITY !AIDS.
1   CAPITALIZATION                                     13
2     SEE ALSO !HANDWRITING TERMS AND !SPELLING.
1   CAPTIONED FILMS                                    16 17
1   CAPTIONED FILMSTRIPS                               16 17
3   *CARDIAC
2     USE !HEART !DISEASE.
3   *C[illegible]
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2      [illegible]AL !NUMBERS.
1   CARDS                                              16 17
2      SEE ALSO !APERTURE, !FLASH, AND !STORY !CARDS, AND
4      !AUDIOTAPE !FLASHCARDS.                          18
1   CAREER EDUCATION                                   18 19
3   *CAREERS            [illegible]
2      USE !EMPLOYMENT, !JOB, AND !VOCATIONAL TERMS OR    20
4      !OCCUPATIONS.
1   CARTOONS                                           16 17 18
3   *CARTRIDGE FILMS
2      USE !FILM !CARTRIDGES.
3   *CASSETTES                                         16 18
2      USE !FILM OR !TAPE !CARTRIDGES.                  19
4      OR !TAPE !CASSETTES.
1   CEREBRAL PALSY                                     01 02
1   CHARTS                                             16 17
2      SEE ALSO !EXPERIENCE !CHARTS.                    20
1   CHECKLISTS                                         09 18
1   CHEMISTRY                                          13
1   CHILD CARE                                         04
2      INCLUDES CHILD REARING.
1   CHILD DEVELOPMENT                                  03
2      DEVELOPMENT OF CHILD FROM AGE 0 TO 21 YEARS.
4      SEE ALSO !IMMATURITY, !MATURATION, AND
4      !COGNITIVE, !EMOTIONAL, !LANGUAGE,
4      !PERCEPTUAL, !PERSONALITY, !PHYSICAL, AND
4      !SOCIAL !DEVELOPMENT.
1   CHILDREN'S BOOKS                                   15 16
2      SEE ALSO !ADVENTURE !STORIES, !COMIC !BOOKS, !FANTASY,   17
4      !MYSTERY !STORIES, !NURSERY !RHYMES, AND !SCIENCE
4      !FICTION.
1   CHORAL READING                                     13
1   CITIZENSHIP                                        13
2      SEE ALSO !LAW !ENFORCEMENT.
1   CIVIL LIBERTIES                                    18
2      USE FOR INDIVIDUAL, HUMAN, OR CIVIL
4      RIGHTS.
1   CLASS ACTIVITIES                                   14
2      SEE ALSO !ACTIVITY !BOOKS.
1   CLASSIFICATION                                     07 13
2      THE ACT OF ORDERING PHENOMENA INTO GROUPS,
4      FAMILIES, OR SYSTEMS ON THE BASIS OF
2      DESIGNATED CHARACTERISTICS.
1   CLASSROOM OBSERVATION TECHNIQUES                   09 14
2      PROCEDURES WHICH USE SYSTEMATIC OBSERVATION
4      TO MEASURE CLASSROOM BEHAVIOR.
3   *CLINICS
2      USE !HEARING, !ITINERANT, !LOW !VISION !AID, OR !MENTAL
2      !HEALTH !CLINICS.
3   *CLOSED CIRCUIT TELEVISION
2      USE !TELEVISED !INSTRUCTION.
1   CLOSURE                                            07 03 11
2      THE PROCESS OF COMPLETING A BEHAVIOR OR MENTAL ACT.
1   CLOTHING                                           15
1   CLUTTERING                                         01
2      A SPEECH DISORDER CHARACTERIZED BY EXCESSIVE RAPIDITY
4      OF SPEECH AND INDISTINCT ENUNCIATION.
1   COGNITIVE DEVELOPMENT                              03
1   COGNITIVE MEASUREMENT                              09
2      SEE ALSO !INTELLIGENCE AND !PSYCHOLOGICAL !TESTS.
1   COGNITIVE PROCESSES                                07
2      PROCESSES OF BECOMING AWARE OF OR
4      OBTAINING KNOWLEDGE OF AN OBJECT, INCLUDES
4      PERCEIVING, RECOGNIZING, CONCEIVING,
4      JUDGING, AND REASONING. SEE ALSO !ABSTRACT !REASONING,
4      [illegible] AND [illegible]
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4       !THINKING.
1   COLOR KEYED MATERIALS                              16 17
1   COLORS                                             13 16
1   COMIC BOOKS                                        16 18
1   COMMUNICATION PROBLEMS                             01
2       NEEDS DEFINITION.
1   COMMUNICATION SKILLS                               12
2       SEE ALSO !LANGUAGE !ABILITY, !NONVERBAL !COMMUNICATION,
4       !SPEECH !SKILLS, AND !VERBAL !COMMUNICATION.
1   COMMUNITY HELPERS                                  13
1   COMMUNITY ORGANIZATIONS                            05
1   COMMUNITY RESOURCES                                04 20
1   COMMUNITY SERVICES                                 04 10
3   *COMPREHENSION
2       USE !LISTENING OR !READING !COMPREHENSION.
1   COMPRESSED SPEECH                                  14
2       SEPARATING AND TRANSMITTING VOICE COMMUNICATED WORDS AT
4       ACCELERATED RATES. INCLUDES COMPRESSED
2       FREQUENCY CONTROLLED AND TIME CONTROLLED SPEECH.
1   COMPUTER ASSISTED INSTRUCTION                      14
2       SEE ALSO !PROGRAMMED !INSTRUCTION.
1   CONCEPT FORMATION                                  07
2       DEVELOPMENT OF AWARENESS OF THE SIGNIFICANCE
4       OR MEANING OF AN OBJECT, IDEA, OR SYSTEM.
3   *CONGENITAL DEFECTS.
2       USE !BIRTH !DEFECTS.
1   CONSERVATION (CONCEPT)                             07 13
2       THE CONCEPT THAT A FACTOR SUCH AS QUANTITY,
4       WEIGHT, OR VOLUME REMAINS CONSTANT DESPITE
4       OTHER RELATED CHANGES.
3   *CONSERVATION EDUCATION
2       USE !ENVIRONMENTAL !EDUCATION OR !OUTDOOR
4       !EDUCATION.
1   CONSONANTS                                         13
2       SEE ALSO !FINAL, !INITIAL, AND !MEDIAL !CONSONANTS.
1   CONSUMER EDUCATION                                 13
2       STUDY OF INTELLIGENT AND EFFECTIVE METHODS OF
4       BUYING AND USING GOODS AND SERVICES,
4       COMPETENT MONEY MANAGEMENT, AND RELATIONSHIP
4       OF CONSUMER TO THE ECONOMIC SYSTEM.
1   CONTEXT CLUES                                      13
2       SEE ALSO !READING !COMPREHENSION.
1   CONTINENTS                                         13
3   *CONTINGENCY CONTRACTING
2       USE !PERFORMANCE !CONTRACTING.
3   *CONTINUING EDUCATION
2       USE !BASIC !ADULT !EDUCATION.
3   *CONTRACEPTION
2       USE !SEX !EDUCATION.
1   CONVERGENT THINKING                                07
2       THOUGHT PROCESS INVOLVING A SEARCH FOR THE
4       ONE RIGHT, BEST, OR CONVENTIONAL ANSWER TO A
4       PROBLEM.
3   *COORDINATION
2       USE !FINE OR !GROSS !MOTOR !SKILLS.
1   CORE VOCABULARY                                    13
2       THAT NUMBER OF WORDS (USUALLY 100-300 WORDS) WHICH
4       ALLOWS AN INDIVIDUAL TO COMMUNICATE WITHIN HIS
4       ENVIRONMENT. SEE ALSO !PROTECTIVE !VOCABULARY.
1   COUNSELING                                         10
2       SEE ALSO !CRISIS !THERAPY.
1   COUNTING                                           13
1   COURTS                                             21
1   CRAFTS                                             13
1   CREATIVE ACTIVITIES                                14
4   *CREATIVE WRITING.
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2       USE !WRITING !SKILLS.
1   CREATIVITY                                         03
2       INCLUDES IMAGINATION.
1   CROSSWORD PUZZLES                                  16 18
1   CUED SPEECH                                        14
2       METHOD OF LANGUAGE LEARNING FOR THE DEAF
4       UTILIZING MANUAL CONFIGURATIONS AS A
4       SUPPLEMENT TO LIPREADING.
1   CULTURAL FACTORS                                   04
2       SEE ALSO !ETHNIC AND !MINORITY !GROUPS,
4       !RACIAL !FACTORS, AND !RELIGION.
1   CULTURE FREE TESTS                                 09
2       TESTS OF GENERAL ABILITY FROM WHICH HAVE
4       BEEN ELIMINATED ALL ITEMS (INVOLVING
4       LANGUAGE, INFORMATION, OR SKILLS) BASED
4       UPON EXPERIENCES THAT ARE MORE COMMON
4       TO ONE CULTURE THAN TO ANOTHER.
1   CURRICULUM GUIDES                                  18
3   *CURRICULUM MATERIALS
2       USE !INSTRUCTIONAL !MATERIALS.
1   CURSIVE WRITING                                    13
2       SEE ALSO !HANDWRITING.
1   CUSTODIAL MENTALLY HANDICAPPED                     01
2       !IQ 0-25.
1   DAILY LIVING SKILLS                                12 13
2       FUNCTIONAL ACTIVITIES OF DAILY LIFE, SUCH AS TELLING
4       TIME, MEAL PREPARATION, AND USING PUBLIC TRANSPORTATION.
4       SEE ALSO !SELF !CARE !SKILLS.
1   DANCE                                              13
1   DEAF                                               01 03
2       A PERSON WHOSE AUDIOMETRIC ASSESSMENT IN THE BETTER EAR
4       INDICATES A LOSS OF APPROXIMATELY 80 DECIBELS OR MORE.
4       SEE ALSO !AURALLY !HANDICAPPED.
1   DEAF BLIND                                         01
2       SEE ALSO !MULTIPLY !HANDICAPPED.
1   DEAF INTERPRETING                                  14
2       PROCESS OF ACTING AS INTERPRETER TO
4       FACILITATE COMMUNICATIONS BETWEEN DEAF AND
4       HEARING PERSONS.
1   DEATH                                              08
2       SEE ALSO !SUICIDE.
1   DECIMALS                                           13
3   *DEDUCTIVE METHODS
2       USE !LOGICAL !THINKING OR !SCIENTIFIC
4       !METHOD.
1   DELINQUENCY                                        06
2       SEE ALSO !BEHAVIOR AND !DISCIPLINE !PROBLEMS.
1   DEMOGRAPHY                                         20
2       THE STATISTICAL STUDY OF HUMAN POPULATIONS
4       ESPECIALLY WITH REFERENCE TO SIZE, DENSITY,
4       DISTRIBUTION, AND VITAL STATISTICS.
1   DENTAL HEALTH                                      13
1   DESERTS                                            13
3   *DEVELOPMENTAL PROGRAMS
2       USE !SEQUENTIAL !APPROACH.
1   DEVELOPMENTAL READING                              13
2       SEE ALSO !BASAL !READING !SERIES.
1   DEXTERITY                                          11
1   DIAGNOSTIC TEACHING                                14
2       USE FOR PRESCRIPTIVE TEACHING.
1   DIAGNOSTIC TESTS                                   09
2       SEE ALSO !PROGNOSTIC !TESTS.
1   DIALECTS                                           01
1   DICTIONARY SKILLS                                  12 13
1   DICTIONARIES                                       15 16
1   [illegible]                                        13
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      TWO LETTERS WHICH WRITTEN TOGETHER REPRESENT A SINGLE
      SOUND.
                                                          18 17
  DIORAMAS
                                                          13
  DIPHTHONGS
      TWO VOWELS WHICH TOGETHER REPRESENT ONE SOUND.
  *DIRECTION FOLLOWING
      USE $FOLLOWING $DIRECTIONS.
                                                          11
  DIRECTIONALITY
      SEE ALSO $LATERALITY, $LEFT TO $RIGHT $PROGRESSION, AND
      $POSITION $WORDS.
                                                          08
  DISADVANTAGED GROUPS
  *DISCOVERY LEARNING
      USE $EXPERIENTIAL $METHOD.
                                                          06
  DISCRIMINATION LEARNING
                                                          04 06
  DISCRIMINATORY ATTITUDES
      USE FOR PREJUDICE.
      SEE ALSO $RACIAL $ATTITUDES.
  *DISCUSSION GROUPS
      USE $GROUP $DISCUSSION.
                                                          02
  DISEASES
      SEE ALSO $SPECIAL $HEALTH $PROBLEMS,
      $ALCOHOLISM, $ASTHMA, $DIABETES, $EPILEPSY, $GLAUCOMA,
      $HEART $DISEASE, $MULTIPLE $SCLEROSIS,
      $MUSCULAR $DYSTROPHY, $MYASTHENIA $GRAVIS,
      $PHENYLKETONURIA, $PSYCHOSOMATIC $DISEASES, $RUBELLA, AND
      $VENEREAL $DISEASES.
                                                          07
  DIVERGENT THINKING
      CREATIVE, IMAGINATIVE, AND FLEXIBLE THINKING
      IN WHICH EMPHASIS IS UPON VARIETY,
      ORIGINALITY, AND ABUNDANCE OF IDEAS OR
      ANSWERS, RATHER THAN UPON FINDING A SINGLE
      CORRECT SOLUTION. SEE ALSO $CREATIVITY
4     AND $CONVERGENT $THINKING.
                                                          13
1   DIVISION
                                                          10 14
1   DOMAN DELACATO METHOD
3   *DOMINANCE
2       USE $LATERALITY.
                                                          01
1   DOWN'S SYNDROME
2       USE FOR MONGOLISM.
                                                          13
1   DRAMATICS
2       ACTIVITIES IN THE CREATION, PREPARATION, AND
4       PRODUCTION OF PLAYS. SEE ALSO $FINGER $PLAYS, $PUPPETS,
4       AND $ROLE $PLAYING.
                                                          13
1   DRAWING
                                                          18 17
1   DRAWINGS
2       SEE ALSO $RAISED $LINE $DRAWINGS.
3   *DRESSING
2       USE $SELF $CARE $SKILLS.
                                                          14
1   DRILL
2       USE WITH A CURRICULAR OR SKILL AREA TERM.
                                                          13
1   DRIVER EDUCATION
                                                          13
1   DRUG EDUCATION
                                                          19 17 18
1   DUPLICATING MASTERS
2       SEE ALSO $REPRODUCTION $MASTERS, $STENCILS
                                                          03
1   EARLY CHILDHOOD
2       AGE RANGE 2 TO 5 YEARS.
4       SEE ALSO $INFANTS AND $INFANT $BEHAVIOR.
                                                          13
1   EARTH SCIENCES
2       SEE ALSO $GEOLOGY, $METEOROLOGY, AND $OCEANOGRAPHY
3   *EATING
2       USE $SELF $CARE $SKILLS.
                                                          04 08
1   ECHOLALIA
2       INVOLUNTARY AND SENSELESS REPETITION OF WORDS
4       HEARD SPOKEN BY ANOTHER PERSON.
3   *ECOLOGY
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                                                          13
1   ECONOMICS
2       SEE ALSO $CONSUMER $EDUCATION.
                                                          01
1   EDUCABLE MENTALLY HANDICAPPED
2       $IQ 50-75.
3   *EDUCATION
2       USE $ADULT, $BUSINESS, $CONSUMER, $DRIVER, $EARLY
2       $CHILDHOOD, $ELEMENTARY, $FAMILY $LIFE, $HEALTH, $OUTDOOR
2       $PARENT, $PHYSICAL, $PREVOCATIONAL, $RELIGIOUS, $RURAL,
2       $SAFETY, $SEX, $TECHNICAL, $URBAN, OR $VOCATIONAL
2       $EDUCATION.
3   *EDUCATIONAL ACCOUNTABILITY
3   *EDUCATIONAL RADIO
2       USE $MASS $MEDIA.
                                                          16
1   EDUCATIONAL TELEVISION
2       FOR CLOSED CIRCUIT TV, USE $TELEVISED
4       $INSTRUCTION.
3   *ELECTRICAL STIMULI
2       USE $TACTUAL OR $VIBROTACTUAL $STIMULI.
3   *ELECTRICITY
2       USE $ELECTRONICS.
                                                          16
1   ELECTROMECHANICAL AIDS
2       SEE ALSO $MOBILITY AND $SENSORY $AIDS.
                                                          16
1   ELECTRONIC EQUIPMENT
                                                          13
1   ELECTRONICS
                                                          03 08
1   EMOTIONAL ADJUSTMENT
3   *EMOTIONAL BEHAVIOR
2       USE $AFFECTIVE $BEHAVIOR.
                                                          03 08
1   EMOTIONAL DEVELOPMENT
                                                          01 08
1   EMOTIONALLY DISTURBED
2       SEE ALSO $AGGRESSION, $ANXIETY, $AUTISM,
4       $BEHAVIOR $PROBLEMS, $ECHOLALIA, $FEAR,
2       $HYPERACTIVITY, $PSYCHOSES, $PSYCHOSOMATIC $DISEASES,
4       $SCHIZOPHRENIA, $SCHOOL $PHOBIA, $SOCIALLY
2       $MALADJUSTED, AND $SUICIDE.
                                                          09
1   EMPLOYMENT OPPORTUNITIES
2       SEE ALSO $JOB AND $VOCATIONAL TERMS AND $OCCUPATIONS.
                                                          15 18
1   ENCYCLOPEDIAS
                                                          13
1   ENGLISH
2       USE TO MEAN $ENGLISH AS A COURSE OF STUDY
4       IN SCHOOL. SEE ALSO $LANGUAGE TERMS AND
4       $LITERATURE.
                                                          13
1   ENGLISH (SECOND LANGUAGE)
2       NON $ENGLISH SPEAKING STUDENTS LEARNING
4       $ENGLISH AS A SECOND OR FOREIGN LANGUAGE.
4       SEE ALSO $NON $ENGLISH $SPEAKING.
                                                          19
1   ENRICHMENT
2       AN EDUCATIONAL METHOD PROVIDING
4       ADDITIONAL EXPERIENCES FOR NEW LEARNING
4       OPPORTUNITIES, FREQUENTLY USED TO
4       STIMULATE GIFTED STUDENTS.
2       BED WETTING.
                                                          13
1   ENVIRONMENTAL EDUCATION
2       STUDY OF ECOLOGICAL BALANCES AND MAN'S INTERRELATIONSHIP
4       WITH AND EFFECT UPON HIS ENVIRONMENT.
                                                          16
1   EQUIPMENT
2       SEE ALSO $AUDIO $EQUIPMENT, $AUDIOVISUAL AND
4       $ELECTROMECHANICAL $AIDS, $ELECTRONIC $EQUIPMENT,
4       $MOBILITY $AIDS, $PROJECTION $EQUIPMENT, AND $SENSORY
4       $AIDS.
                                                          13
1   EROSION
                                                          09
1   ESKIMOS
3   *ETHICS
2       USE $MORAL $VALUES.
                                                          08
1   ETHNIC GROUPS
2       SEE ALSO $ANGLO $AMERICANS, $BLACKS, $ESKIMOS,
4       [illegible]
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4	IPUERTO IRICANS, ISPANISH ISPEAKING, IMINORITY	
4	IGROUPS, AND ICULTURAL AND IRACIAL TERMS.	
1	EVALUATION	09
2	SEE ALSO IMEDICAL.	
1	EXPERIENCE CHARTS	18 17
2	PRINTED ON HANDWRITTEN CHARTS PREPARED BY THE TEACHER AND	
4	BASED ON SOME EXPERIENCE IN WHICH CHILDREN PARTICIPATE.	
1	EXPERIENTIAL METHOD	14
2	INCLUDES FIELD TRIPS AND DISCOVERY LEARNING IN WHICH THE	
4	STUDENT CONSTRUCTS THE PRINCIPLE FOR HIMSELF BASED UPON	
4	HIS OBSERVATIONS AND EXPERIMENTS.	
1	EXPERIMENTS	18 14
2	SEE ALSO ISCIENCE.	
1	EXPRESSIVE LANGUAGE	13
2	SEE ALSO IRECEPTIVE ILANGUAGE AND IVERBAL IABILITY.	
1	EYE HAND COORDINATION	11
2	SEE ALSO IPERCEPTUAL IMOTOR ILEARNING AND IVISUAL IMOTOR	
4	IINTEGRATION.	
3	*FABLES	
2	USE IFANTASY.	
3	*FAIRY TALES	
2	USE IFANTASY.	
1	FAMILY LIFE	18
2	SEE ALSO ISEX IEDUCATION.	
1	FANTASY	18 16
2	INCLUDES FABLES, FAIRY TALES, FOLK TALES, AND LEGENDS.	
3	*FEAR	
2	USE IEMOTIONAL IADJUSTMENT.	
1	FEEDBACK	08
3	*FEELINGS	
2	USE IEMOTIONAL IADJUSTMENT.	
1	FICTION	18 16
2	SEE ALSO IADVENTURE ISTORIES, IMYSTERY ISTORIES, AND	
4	ISCIENCE IFICTION.	
3	*FIELD TRIPS	
2	USE IEXPERIENTIAL IMETHOD.	
1	FIGURE GROUND PERCEPTION	11
2	SEE ALSO IVISUAL IPERCEPTION.	
1	FIGURES OF SPEECH	13
1	FILM CARTRIDGES	18 17
1	FILM LOOPS	18 17
3	*FILM PROJECTORS	
2	USE IPROJECTION IEQUIPMENT.	
1	FILMS 8MM	18 17
2	SEE ALSO ICAPTIONED IFILMS.	
1	FILMS 16MM	18 17
2	SEE ALSO ICAPTIONED IFILMS.	
1	FILMS SOUND	18 17
1	FILMS SUPER 8MM	18 17
1	FILMS 35MM	18 17
2	SEE ALSO ICAPTIONED IFILMS.	
1	FILMSLIPS	18 17
2	MOUNTED FILMSTRIPS.	
3	*FILMSTRIP PROJECTORS	
2	USE IPROJECTION IEQUIPMENT.	
1	FILMSTRIPS	18 17
2	SEE ALSO ICAPTIONED IFILMSTRIPS.	
1	FINAL CONSONANTS	13
2	SEE ALSO IINITIAL AND IMEDIAL ICONSONANTS.	
1	FINE ARTS	18
2	SEE ALSO IART, ICREATIVITY, IDANCE, IDRAMATICS, IFREEHAND	
4	IDRAWING, IMUSIC, IPAINTING, IPHOTOGRAPHY, AND	
4	ISCULPTURE.	
1	FINE MOTOR SKILLS	11 17
2	SEE ALSO IVISUAL IMOTOR IINTEGRATION.	
1		11 17
1	FINGER SPELLING	14
2	SPELLING BY FINGER MOVEMENTS. ONE FORM OF MANUAL	
4	COMMUNICATION USED BY THE DEAF. SEE ALSO ICUED ISPEECH,	
4	IMANUAL AND INONVERBAL ICOMMUNICATION, AND ISIGN	
4	ILANGUAGE.	
1	FLASH CARDS	18 17
2	SEE ALSO IAUDIOTAPE IFLASHCARDS.	
3	*FOLK TALES	
2	USE IFANTASY.	
1	FOLLOWING DIRECTIONS	18
3	*FOLLOWUP STUDIES	
2	USE ICASE OR ILONGITUDINAL ISTUDIES.	
1	FOREIGN COUNTRIES	18
3	*FOREIGN LANGUAGES	
1	FOSSILS	18
2	USE ISPECIFIC ILANGUAGE.	
1	FRACTIONS	13
3	*FREQUENCY CONTROLLED SPEECH	
2	USE ISPEECH ICOMPRESSION.	
3	FRUSTRATION	
2	USE IEMOTIONAL IADJUSTMENT.	
1	GAMES	18 17
2	SEE ALSO IPLAYGROUND IACTIVITIES, IRECREATION, ISPORTS,	
4	AND ITOYS.	
1	GEOGRAPHY	18
2	SEE ALSO ICONTINENTS, IDESERTS, IISLANDS, ILAKES,	
4	IMOUNTAINS, IOCEANS.	
1	GEOLOGY	18
2	SEE ALSO ICONTINENTS, IDESERTS, IEROSION, IFOSSILS,	
4	IISLANDS, ILAKES, IMINERALS, IMOUNTAINS, IOCEANS, IROCKS.	
1	GEOMETRY	18
1	GETTING THE MAIN IDEA	13
1	GIFTED	01
3	*GIRL SCOUTS	
2	USE ISCOUTING.	
3	*GLASSES	
2	USE ILOW IVISION IAIDS.	
1	GLOBES	18 17
1	GLOSSARIES	18 16
1	GOVERNMENT	18
1	GRADE 1	19
1	GRADE 2	19
1	GRADE 3	19
1	GRADE 4	19
1	GRADE 5	19
1	GRADE 6	19
1	GRADE 7	19
1	GRADE 8	19
1	GRADE 9	19
1	GRADE 10	19
1	GRADE 11	19
1	GRADE 12	19
1	GRAMMAR	18
2	SEE ALSO IPARTS OF ISPEECH AND ISYNTAX. INCLUDES	
4	SENTENCE STRUCTURE.	
1	GRAPHEMES	18
2	A LETTER OR LETTER COMBINATION REPRESENTING A PHONEME.	
4	SEE ALSO ISPELLING.	
1	GRAPHIC ARTS	18
1	GRAPHS	18 17
3	*GROOMING	
2	USE ISELF ICARE ISKILLS.	
1	GROSS MOTOR SKILLS	11 12
1	GROUP ACTIVITIES	14
1	GROUP DISCUSSION	14
2	INCLUDES SEMINARS AS A TEACHING TECHNIQUE.	

1 GROUP TESTS 09
1 GUSTATORY PERCEPTION 11
2 SENSE OF TASTE.
1 HABILITATION 10
DEVELOPMENT OF SKILLS OR ABILITIES NOT PREVIOUSLY PRESENT
4 IN THE HANDICAPPED.
3 *HANDBOOKS
2 USE !MANUALS.
1 HANDWRITING 13
2 SEE ALSO !CURSIVE !WRITING, !MANUSCRIPT !WRITING, AND
4 !LEFT !HANDED !WRITER.
3 *HAPTIC PERCEPTION
2 USE !TACTUAL !PERCEPTION.
1 HARD OF HEARING 01
2 A PERSON WHOSE AUDIOMETRIC ASSESSMENT
4 IN THE BETTER EAR INDICATES A LOSS OF APPROXIMATELY 45
4 TO 80 DECIBELS.
1 HEALTH EDUCATION 13
3 *HEALTH IMPAIRED
2 USE !SPECIAL !HEALTH !PROBLEMS.
1 HEARING CONSERVATION 10
3 *HEARING IMPAIRED
2 USE !DEAF OR !HARD OF !HEARING.
1 HIGH INTEREST LOW VOCABULARY 18
1 HISTORY 13
2 SEE ALSO !AMERICAN, !BLACK, AND !WORLD !HISTORY.
1 HOBBIES 13
2 SEE ALSO !INTERESTS AND !RECREATION.
1 HOLIDAYS 13
1 HOME ECONOMICS 13
1 HOME INSTRUCTION 14
INCLUDES INSTRUCTION BY PARENTS.
4 SEE ALSO !TELEPHONE !COMMUNICATION !SYSTEMS.
1 HOMONYMS 13
2 TWO OR MORE WORDS HAVING THE SAME PRONUNCIATION BUT
4 HAVING DIFFERENT MEANINGS.
1 HUMOR 16
3 *HYGIENE
2 USE !HEALTH !EDUCATION OR !SELF !CARE !SKILLS.
3 *IMAGINATION
2 USE !CREATIVITY.
1 INDIANS 05
1 INDIVIDUAL TESTS 09
1 INDIVIDUALIZED INSTRUCTION 14
2 SEE ALSO !DIAGNOSTIC !TEACHING AND !TUTORING.
3 *INDUCTIVE METHODS
2 USE !SCIENTIFIC !METHOD. SEE ALSO !LOGICAL !THINKING.
1 INDUSTRIAL ARTS 13
1 INFANTS 03 05 19
2 AGE RANGE 0 TO 2 YEARS.
4 SEE ALSO !EARLY !CHILDHOOD AND !CHILD !DEVELOPMENT.
1 INFORMAL READING INVENTORY 09
2 MATERIALS OF VARYING DIFFICULTY USED IN READING
4 DIAGNOSIS.
1 INITIAL CONSONANTS 13
2 SEE ALSO !MEDIAL AND !FINAL !CONSONANTS.
1 INITIAL TEACHING ALPHABET 13 16
1 INITIAL VOWELS 13
SEE ALSO !MEDIAL !VOWELS.
1 INKPRINT 16
2 PRINTED VERSIONS OF BRAILLE MATERIALS.
1 INQUIRY TRAINING 14
2 TRAINING IN QUESTIONING AND TECHNIQUES SEEKING A
4 SUBJECTIVE RATHER THAN AN OBJECTIVE FACT. SEE ALSO
4 !INTERVIEWS AND !QUESTIONNAIRES.

1 INTEGRATION 07
2 REFERS TO THE COGNITIVE PROCESS. SEE ALSO !VISUAL !MOTOR
4 !INTEGRATION.
1 INTELLIGENCE TESTS 09
1 INTERDISCIPLINARY APPROACH 14
2 PARTICIPATION OR COOPERATION OF TWO OR MORE DISCIPLINES.
1 INTEREST SCALES 09
1 INTERMEDIATE GRADES 19
2 GRADES 4, 5, 6.
3 *INTERPERSONAL COMPETENCE
2 USE !SOCIAL !SKILLS.
1 INTONATION 12
1 ISLANDS 13
3 *ITA
2 USE !INITIAL !TEACHING !ALPHABET.
3 *JOB APPLICATION (FORMS)
2 USE !APPLICATION !FORMS.
3 *JOB TRAINING
2 USE !VOCATIONAL !EDUCATION. SEE ALSO !ON THE !JOB
4 !TRAINING.
1 JUNIOR HIGH GRADES 19
2 GRADES 7, 8, 9.
1 KINDERGARTEN 19 21
1 KINESCOPE RECORDINGS 15 17
2 16 MM FILM TAKEN DIRECTLY FROM A TELEVISION PICTURE.
1 KINESTHETIC PERCEPTION 11
2 SENSE PERCEPTION OF MOVEMENT, WEIGHT, RESISTANCE, AND
4 POSITION. SEE ALSO !BALANCE AND !SPATIAL !ORIENTATION.
1 KITS 15 17
2 A COMBINATION OF TWO OR MORE MEDIA DESIGNED TO BE USED
4 AS A UNIT.
1 LAKES 13
1 LANGUAGE ARTS 13
2 SEE ALSO !HANDWRITING, !READING TERMS, !SPELLING, AND
4 !WRITING !SKILLS.
1 LANGUAGE DEVELOPMENT 03
2 SEE ALSO !RETARDED !SPEECH !DEVELOPMENT.
1 LANGUAGE HANDICAPPED 01
2 A PERSON WITH A RECEPTIVE OR EXPRESSIVE LANGUAGE DEFECT
4 WHICH IS NOT CAUSED BY DEFECTS OF PERIPHERAL SPEECH
4 MECHANISMS.
1 LANGUAGE LABORATORIES 21
1 LANGUAGE TESTS 09
2 SEE ALSO !VERBAL !TESTS.
3 *LAPS
2 USE !LEARNING !ACTIVITY !PACKAGES.
1 LARGE GROUP INSTRUCTION 14
2 CLASSES OF SIX OR MORE STUDENTS.
1 LARGE TYPE MATERIALS 15 17
1 LATERALITY 11
1 LAW ENFORCEMENT 13
2 SEE ALSO !CITIZENSHIP AND !COURTS.
3 *LEARNING
2 USE !ASSOCIATIVE, !AUDITORY, !DISCRIMINATION,
4 !MULTISENSORY, !NONVERBAL, !PERCEPTUAL !MOTOR, !VERBAL,
2 OR !VISUAL !LEARNING, OR !PLAY.
1 LEARNING ACTIVITY PACKAGES 14 16
2 SEE ALSO !INDIVIDUALIZED !INSTRUCTION, !SELF !PACING
2 !MATERIALS, AND !TEACHER !DEVELOPED !MATERIALS.
1 LEARNING DISABILITIES 01
2 DISTINGUISHED BY SHARP IMBALANCE WITHIN THE
4 STUDENT'S COGNITIVE DEVELOPMENT AND A MARKED
4 UNDERACHIEVEMENT. SEE ALSO !APHASIA,
4 !DYSLEXIA, !LANGUAGE !HANDICAPS, !MINIMAL !BRAIN
4 !DYSFUNCTION, AND !PERCEPTUAL !HANDICAPS.
1 [illegible] 21

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1   LEFT HANDED WRITER                                  01
2       SEE ALSO $HANDWRITING.
1   LEFT TO RIGHT PROGRESSION                           11
2       WHEN EXERCISES ARE DESIGNED SPECIFICALLY
4       TO TEACH MOVING ACROSS THE PAGE FROM LEFT
4       TO RIGHT.
3   *LEGENDS
2       USE $FANTASY.
3   *LEISURE TIME
2       USE $RECREATION.
1   LETTER WRITING                                      13
2       USE FOR VARIOUS TYPES OF CORRESPONDENCE.
3   *LIBRARY SCIENCE
2       USE $INFORMATION $SCIENCE.
1   LIBRARY SKILLS                                      12 13
1   LIKENESSES DIFFERENCES                              13
2       USE FOR MATERIALS CONTAINING PICTORIAL OR
4       SYMBOLIC REPRESENTATIONS AND REQUIRING THE STUDENT
4       TO IDENTIFY LIKENESSES AND/OR DIFFERENCES.
1   LINGUISTICALLY BASED MATERIALS                      13
2       DESCRIBES MATERIALS BASED ON THE PATTERNS WHICH GOVERN
2       THE SPELLING AND SENTENCE STRUCTURE OF THE LANGUAGE.
1   LIPREADING                                          13 14
2       SPEECH READING. SEE ALSO $CUED $SPEECH AND $ORAL
4       $COMMUNICATION.
1   LISTENING COMPREHENSION                             13
1   LISTENING SKILLS                                    11 12 13
1   LITERATURE                                          13 15 18
2       SEE ALSO $ADVENTURE $STORIES, $ANIMAL $STORIES,
2       $AUTOBIOGRAPHIES, $BIOGRAPHIES, $CHILDREN'S $BOOKS,
2       $FANTASY, $FICTION, $HUMOR, $MYSTERY $STORIES,
2       $MYTHOLOGY, $NONFICTION, $NURSERY $RHYMES, $POETRY,
2       $SCIENCE $FICTION, AND $SPORTS $STORIES.
1   LOGICAL THINKING                                    07
2       USE FOR MATERIALS REQUIRING USE OF REASONING ABILITY
4       AND LOGICAL THOUGHT PROCESSES TO OBTAIN CORRECT RESPONSE.
4       SEE ALSO $ABSTRACT $REASONING, $PROBLEM $SOLVING,
4       AND $SCIENTIFIC $METHOD.
1   LONG VOWELS                                         13
3   *LOW ACHIEVERS
2       USE $UNDERACHIEVERS.
1   LOW VISION AIDS                                     16
2       SEE ALSO $LARGE $TYPE $BOOKS AND $MATERIALS.
1   LOW VISION TRAINING                                 10 14
2       SEE ALSO $SIGHT $CONSERVATION.
1   MAGNETISM                                           13
3   *MAGNIFICATION
2       USE $LOW $VISION $AIDS.
1   MANIPULATIVE MATERIALS                              15 17
1   MANNERS                                             13
2       SEE ALSO $SOCIAL $DEVELOPMENT AND $SOCIAL $SKILLS.
1   MANUAL COMMUNICATION                                14
2       COMMUNICATION VIA MANUAL CONFIGURATIONS
4       (SIGNS OR FINGER SPELLING) RATHER THAN ORALLY. SEE ALSO
4       $CUED $SPEECH, $FINGER $SPELLING, $NONVERBAL
4       $COMMUNICATION, AND $SIGN $LANGUAGE.
1   MANUALS                                             18
2       INCLUDES HANDBOOKS AND TEACHING GUIDES.
4       SEE ALSO $GUIDELINES, $CURRICULUM $GUIDES, AND $TEACHER
4       $EDITIONS.
1   MANUSCRIPT WRITING                                  13
2       PRINTING BY HAND.
1   MAP SKILLS                                          12 13
1   MAPS                                                15 17
2       SEE ALSO $GLOBES.
1   MARRIAGE                                            03
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1   MASS MEDIA                                          16
2       SEE ALSO $EDUCATIONAL $TELEVISION, $NEWSPAPERS, AND
4       $PUBLICATIONS.
3   *MATCHING
2       USE $CLASSIFICATION.
1   MATHEMATICS                                         13
2       INCLUDES ARITHMETIC. SEE ALSO $ADDITION,
4       $ALGEBRA, $BASE $NUMBERING $SYSTEMS,
4       $CALCULUS, $DECIMALS, $DIVISION, $FRACTIONS, $GEOMETRY,
4       $MEASUREMENT, $METRIC $SYSTEM, $MULTIPLICATION,
2       $NUMBERS, $PERCENT, $PLACE $VALUE, $RATIO, $SET $THEORY,
4       $SUBTRACTION, AND $TRIGONOMETRY.
1   MATHEMATICS READINESS                               19
2       INCLUDES NUMBER READINESS.
2       SEE ALSO $IMMATURITY AND $CHILD $DEVELOPMENT.
1   MEASUREMENT                                         13
2       MATERIALS TEACHING LENGTH, WEIGHT, AREA, VOLUME, AND
4       TEMPERATURE. SEE ALSO $METRIC $SYSTEM.
1   MECHANICAL SKILLS                                   11 12 13
2       UNDERSTANDING OF AND ABILITY TO OPERATE TOOLS, DEVICES,
4       AND MACHINES.
3   *MEDIA TECHNOLOGY
2       USE $EDUCATIONAL $TECHNOLOGY,
4       OR $MASS $MEDIA.
1   MEDIAL CONSONANTS                                   13
2       SEE ALSO $INITIAL AND $FINAL $CONSONANTS.
1   MEDIAL VOWELS                                       13
2       SEE ALSO $INITIAL $VOWELS.
2       DIAGNOSIS BY PHYSICIANS.
1   MEMORY                                              07
2       INCLUDES MEMORIZING, RETENTION, RECALL, AND RECOGNITION.
4       FOR AUDITORY OR VISUAL MEMORY, SEE $AUDITORY $IMAGERY,
4       $AUDITORY $SEQUENCING, $VISUAL $IMAGERY, OR $VISUAL
4       $SEQUENCING.
3   *METAPHORS
2       USE $FIGURES OF $SPEECH.
1   METEOROLOGY                                         13
2       SEE ALSO $WEATHER.
3   *METHODS
2       USE $RESEARCH $DESIGN OR $TEACHING $METHODS.
1   METRIC SYSTEM                                       13
2       SEE ALSO $MEASUREMENT.
1   MEXICAN AMERICANS                                   08
1   MICROFICHE                                          17
2       MICROREPRODUCTION ON A FLAT SHEET OF FILM,
4       NORMALLY 4 X 6 INCHES IN SIZE.
1   MICROFILMS                                          17
2       A ROLL OF FILM CONTAINING MICROREPRODUCTION.
1   MICROFORMS                                          17
2       ANY MICROREPRODUCTION OF PRINT MATERIAL WHICH
4       CANNOT BE READ WITHOUT MAGNIFICATION.
1   MICROIMAGE VIEWERS                                  16
1   MICROOPAQUES                                        17
2       MICROREPRODUCTIONS ON AN OPAQUE SURFACE
1   MICROSCOPE SLIDES                                   15 17
1   MICROSCOPES                                         16
3   *MIDDLE SCHOOLS
2       USE $JUNIOR $HIGH $GRADES.
1   MIGRANT EDUCATION                                   20
2       EDUCATIONAL PROGRAMS DESIGNED TO MEET THE
4       SPECIAL NEEDS OF THE MIGRANT POPULATION.
3   *MILIEU THERAPY
2       USE $THERAPEUTIC $ENVIRONMENT.
1   MINERALS                                            13
1   MINORITY GROUPS                                     08
2       SEE ALSO $ETHNIC $GROUPS.
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*MOBILITY
    USE IORIENTATION AND IMOBILITY.
MOBILITY AIDS                                          16
    DEVICES OR MATERIALS WHICH ASSIST HANDICAPPED PERSONS TO
    MOVE SAFELY WITHIN THEIR ENVIRONMENT. SEE ALSO ICANES,
    IDOG IGUIDES, IELECTROMECHANICAL IAIDS, ITRAVEL
    ITRAINING, AND IWHEEL ICHAIRS.
MODELS                                                 10 17
    PHYSICAL REPRESENTATION OF AN OBJECT. FOR
    SCHEMATIC REPRESENTATIONS OF A PLAN OR
    CONCEPT, SEE ICONCEPTUAL IMODELS.
*MODERN MATH CONCEPTS
    USE ISET ITHEORY OR IBASE INUMBERING ISYSTEMS.
MONEY                                                  13 15
    REFERS TO METHODS OR MATERIALS FOR TEACHING
    MONEY VALUES AND HOW TO COUNT AND MAKE CHANGE.
MONEY MANAGEMENT                                       13
    USE FOR IBANKING, IBUDGETING, AND ICREDIT.
*MONGOLISM
    USE IDOWN'S ISYNDROME.
MONTESSORI METHOD                                      14
MORAL VALUES                                           13
    INCLUDES ETHICS.
MOTORIC STIMULI                                        14
    USE FOR INSTRUCTIONAL DEVICES WHICH STIMULATE
    OR CONTROL USE OF LARGE OR SMALL MUSCLES.
MOUNTAINS                                            . 13
MOVEMENT EDUCATION                                     11 13
    SEE ALSO ISPATIAL IRELATIONSHIP.
MULTILEVEL                                             17 18 19
    SPANNING MORE THAN ONE INSTRUCTION LEVEL. SEE ALSO
    INONGRADED.
   TIMEDIA INSTRUCTION                                 14
MULTIPLICATION                                         13
MULTIPLY HANDICAPPED                                   01
    SEE ALSO ICEREBRAL IPALSY AND IDEAF IBLIND.
MULTISENSORY LEARNING                                  06
    LEARNING USING MORE THAN ONE INPUT MODALITY. SEE ALSO
    IAUDITORY ILEARNING, ISENSORY TERMS, AND
    IVISUAL ILEARNING.
MUSCULAR STRENGTH                                      03
    SEE ALSO IPHYSICAL IFITNESS.
MUSIC                                                  13
    SEE ALSO IRHYTHM IBANDS, IRHYTHMS, AND SONGS.
MUSIC THERAPY                                          10 14
MYSTERY STORIES                                        15 18
MYTHOLOGY                                              18
    SEE ALSO IFANTASY.
*NATURE
    USE IOUTDOOR IEDUCATION.
1  NEGATIVE REINFORCEMENT                            . 10 14
3  *NEGROES
2      USE IBLACKS. SEE ALSO IBLACK IHISTORY.
1  NEIGHBORHOOD                                        13
1  NEMETH CODE                                         17
2      BRAILLE SYSTEM OF MATHEMATICAL NOTATION.
3  *NEUROLOGICALLY HANDICAPPED
2      USE ICEREBRAL IPALSY, IEPILEPSY, IHYPERACTIVITY,
4      ILEARNING IDISABILITIES, IMINIMAL IBRAIN IDYSFUNCTION, OR
4      IMULTIPLE ISCLEROSIS.
3  *NEUROTIC CHILDREN
2      USE IEMOTIONALLY IDISTURBED.
1  NEWSPAPERS                                          15 18
3  *NOISE
2      USE IACOUSTICS OR IENVIRONMENTAL IINFLUENCES.
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2      SEE ALSO IAUTOBIOGRAPHIES, IBIOGRAPHIES, AND
4      IREFERENCE IMATERIALS.
1  NONGRADED                                           17 18
2      REFERS TO MATERIALS WHICH MAY BE USED AT
4      SEVERAL GRADE LEVELS.
4  .   SEE ALSO IMULTILEVEL AND IOPEN IEDUCATION.
1      NONVERBAL AUDITORY MATERIALS                    16
1  NONVERBAL COMMUNICATION                             12
2      SEE ALSO ICOMMUNICATION TERMS.
1  NONVERBAL LEARNING                                  06
1  NONVERBAL TESTS                                     09
1  NONVERBAL AUDITORY MATERIALS                        16
1  NOTETAKING                                          13
2      MATERIALS THAT TEACH HOW TO RECORD SELECTED
4      INFORMATION FROM MATERIAL PRESENTED ORALLY
4      OR IN WRITTEN FORM.
3  *NUMBER READINESS
2      USE IMATHEMATICS IREADINESS.
1  NUMBERS                                             13 18
2      INCLUDES NUMBER WORDS, FORMATION OF NUMERALS, AND
4      SEQUENTIAL ARRANGEMENT OF NUMBERS.
1  NURSERY RHYMES                                      15 18
2      SEE ALSO ICHILDREN'S IBOOKS.
1  NUTRITION                                           13
2      INCLUDES DIETETICS AND EATING HABITS. SEE
4      ALSO IHEALTH IEDUCATION.
1  OCCUPATIONAL THERAPY                              . 10 14
2      INCLUDES WORK THERAPY.
1  OCCUPATIONS                                         13 25
2    . MATERIALS ABOUT SPECIFIC OCCUPATIONS. SEE
4      ALSO IHEALTH IPERSONNEL, IITINERANT
4      ITEACHERS, IPHYSICIANS, IRESOURCE
4      ITEACHERS, ISPECIAL IEDUCATION ITEACHERS, AND ITEACHERS.
1  OCEANOGRAPHY                                        13
1  OCEANS                                              13
1  OLFACTORY PERCEPTION                                11
2      SENSE OF SMELL.
1  OMISSIONS                                           01
2      SPEECH DIFFICULTIES INVOLVING OMISSION OF A
4      LETTER OR SOUND.
1  ON THE JOB TRAINING                                 13 14 25
3  *OPAQUE PROJECTORS
2      USE IPROJECTION IEQUIPMENT.
3  *OPERANT CONDITIONING
2      USE IBEHAVIOR IMODIFICATION.
1  ORAL COMMUNICATION                                  14
2      VOCAL AS OPPOSED TO MANUAL (SIGN LANGUAGE OR
4      FINGER SPELLING) COMMUNICATION. USE ALSO IN RELATION TO
4      THE AURALLY HANDICAPPED. SEE
4      ALSO ICUED ISPEECH AND ILIPREADING.
3  *ORDINAL CONCEPTS
2      USE INUMBERS.
1  ORIENTALS                                           08
3  *ORIENTATION
2      USE ISPATIAL IORIENTATION OR ITIME IPERSPECTIVE.
1  ORIENTATION AND MOBILITY                            10 12
2      MATERIALS TEACHING SPATIAL ORIENTATION OF THE VISUALLY
4      HANDICAPPED TO HIS SURROUNDINGS, AND MATERIALS TEACHING
4      THE VISUALLY HANDICAPPED TECHNIQUES OF MOVING ABOUT OR
4    . TRAVELING, USING VARIOUS MOBILITY AIDS. SEE ALSO ISPATIAL
4      IORIENTATION, ICANES, IDOG IGUIDES, IMOBILITY AND
4      ISENSORY IAIDS, AND ITRAVEL ITRAINING.
3  *ORTHOPEDICALLY HANDICAPPED
2      USE IPHYSICALLY IHANDICAPPED.
1  OUTDOOR EDUCATION                                   13
2      SEE ALSO IENVIRONMENTAL IEDUCATION.
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1   PAINTING                                                13
2       SEE ALSO !ART !PRINTS, !FREEHAND !DRAWING, AND !PICTURES.
3   *PAIRED ASSOCIATE LEARNING
4       USE !ASSOCIATIVE !LEARNING.
    PAMPHLETS                                               15 16
3   *PAROCHIAL SCHOOLS
2       SEE !RELIGIOUS !EDUCATION.
1   PART WHOLE RELATIONSHIPS                                07 13
2       THE CONCEPT OF IDENTIFYING AND RELATING
4       PARTS OF A WHOLE. SEE ALSO !PUZZLES.
1   PARTIALLY SIGHTED                                       01
2       A PERSON WHOSE VISUAL ACUITY IN THE BETTER EYE IS
4       BETWEEN 20/200 AND 20/70 AFTER CORRECTION. SEE ALSO !LOW
4       !VISION, !LOW !VISION !AIDS, AND !VISUAL !HANDICAPS.
1   PARTS OF SPEECH                                         13
3   *PATTERN COMPLETION
2       USE !CLOSURE.
1   PEER TUTORING                                           14
2       SEE ALSO !TUTORING.
1   PERCENT                                                 13
3   *PERCEPTION
2       USE !AUDITORY, !GUSTATORY, !KINESTHETIC,
4       !OLFACTORY, !TACTUAL, AND !VISUAL !PERCEPTION,
4       OR !SENSORY TERMS.
1   PERCEPTION TESTS                                        09
2       SEE ALSO !AUDITORY, !TACTUAL, AND !VISION !TESTS.
1   PERCEPTUAL DEVELOPMENT                                  03
1   PERCEPTUAL MOTOR LEARNING                               06 11
2       SEE ALSO !VISUAL !MOTOR !INTEGRATION AND
4       !EYE !HAND !COORDINATION.
1   PERCEPTUALLY HANDICAPPED                                01
        SEE ALSO !LEARNING !DISABILITIES.
1   PERFORMANCE TESTS                                       09
1   PERIODICALS                                             15 16
2       INCLUDES JOURNALS. SEE ALSO !NEWSLETTERS AND
4       !PUBLICATIONS.
1   PERSONALITY DEVELOPMENT                                 05
3   *PERSONALITY PROBLEMS
2       USE !BEHAVIOR !PROBLEMS.
1   PERSONALITY TESTS                                       09
2       SEE ALSO !PROJECTIVE !TESTS.
1   PHILOSOPHY                                              24
1   PHONEMES                                                13
1   PHONICS                                                 13
2       PHONETICS AS APPLIED TO THE TEACHING OF READING.
1   PHONOGRAPH RECORDS                                      15 17
1   PHONOGRAPHS                                             16
1   PHOTOGRAPH                                              15
1   PHOTOGRAPHY                                             13
1   PHYSICAL EDUCATION                                      13
2       SEE ALSO !RECREATION AND !SPORTS.
3   *PHYSICAL EXAMINATIONS
2       USE !MEDICAL !EVALUATION.
1   PHYSICAL FITNESS                                        03
2       SEE ALSO !MUSCULAR !STRENGTH.
1   PHYSICAL SCIENCES                                       13
2       SEE ALSO !EARTH !SCIENCES, !GEOLOGY, !METEOROLOGY,
4       !OCEANOGRAPHY, !PHYSICS, AND !SPACE !SCIENCES.
1   PHYSICAL THERAPY                                        10
1   PHYSICALLY HANDICAPPED                                  01
1   PHYSICALLY HANDICAPPED MOBILITY                         10 13
1   PHYSICS                                                 13
1   PHYSIOLOGY                                              13
2       SEE ALSO !BIOLOGICAL !INFLUENCES.
1   PIAGET MATERIALS                                        14
4       [illegible]
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2       USE !DICTIONARIES.
1   PICTURES                                                15 17
2       SEE ALSO !ART !PRINTS.
1   PIONEERS                                                18
3   *PKU
2       USE !PHENYLKETONURIA.
1   PLACE VALUE                                             13
2       THE CONCEPT OF UNITS, TENS, HUNDREDS, ETC.
1   PLAYGROUND ACTIVITIES                                   01
2       SEE ALSO !GAMES, !RECREATION, AND !SPORTS.
1   POETRY                                                  18
2       SEE ALSO !ANTHOLOGIES, !NURSERY !RHYMES, AND !RHYMES.
3   *POISONINGS
2       USE !SAFETY !EDUCATION.
3   *POPULATION
2       USE !DEMOGRAPHY.
3   *POSITION IN SPACE
2       USE !SPATIAL !ORIENTATION.
1   POSITION WORDS                                          13
2       USE FOR MATERIAL TEACHING POSITION WORDS AND CONCEPTS
4       SUCH AS ABOVE, BELOW, BETWEEN. SEE ALSO !ABSTRACT
4       !REASONING.
1   POSTURE                                                 03
3   *PRACTICAL MATH
2       USE !CONSUMER !EDUCATION OR !DAILY
4       !LIVING !SKILLS.
1   PREFIXES                                                13
3   *PREJUDICE
2       USE !DISCRIMINATORY OR !RACIAL !ATTITUDES.
1   PREPRIMERS                                              15 16
2       BEGINNING READING LEVEL MATERIALS.
1   PREREADINESS                                            03 19
2       DEVELOPMENTAL STAGE DURING WHICH SENSORY
4       SKILLS AND COGNITIVE AND AFFECTIVE
4       ABILITIES BECOME SUFFICIENTLY ORGANIZED TO ENABLE
4       THE CHILD TO BEGIN STRUCTURED LEARNING TASKS.
1   PRESCHOOL TESTS                                         09
3   *PRESCRIPTIVE TEACHING
2       USE !DIAGNOSTIC !TEACHING.
1   PREVOCATIONAL EDUCATION                                 13 19 20 25
2       PROGRAMS AT ELEMENTARY AND INTERMEDIATE
4       LEVELS GEARED TOWARD VOCATIONAL PREPARATION.
1   PRIMARY GRADES                                          19
2       GRADES 1, 2, 3. SEE ALSO !KINDERGARTEN.
1   PRIMERS                                                 15 16
1   PROBLEM SOLVING                                         07 14
1   PROGNOSTIC TESTS                                        09
2       SEE ALSO !DIAGNOSTIC !TESTS.
1   PROGRAMMED INSTRUCTION                                  14
2       SEE ALSO !COMPUTER !ASSISTED !INSTRUCTION AND !TEACHING
4       !MACHINES.
1   PROGRAMMED MATERIALS                                    15 17 18
2       SEQUENTIALLY CONSTRUCTED MATERIALS
4       SPECIFICALLY FEATURING MEANS FOR THE
4       RETEACHING OF INCOMPLETELY LEARNED FACTS,
4       CONCEPTS, OR SKILLS. MAY OR MAY NOT REQUIRE
4       THE USE OF HARDWARE.
1   PROJECTION EQUIPMENT                                    16
2       INCLUDES FILM, FILMSTRIP, OPAQUE AND OVERHEAD
4       PROJECTORS.
3   *PROJECTION SCREENS
2       USE !SCREENS.
1   PROJECTIVE TESTS                                        09
2       METHOD OF MEASURING INDIVIDUAL PERSONALITY
4       IN WHICH THE STIMULUS IS USUALLY UNSTRUCTURED
4       IN ORDER TO PRODUCE RESPONSES REFLECTING
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THE PERSON'S OWN INDIVIDUALITY RATHER THAN THE BIASES
IMPLICIT IN THE STRUCTURING OF THE DIRECTIVE ITEMS.
PROSTHESES 10 16
SEE ALSO IAMPUTEES.
TECTIVE VOCABULARY 13
WORDS ACCOMPANYING SIGNS, COLORS, SHAPES,
AND SYMBOLS, THE RECOGNITION OF WHICH HELPS
PROTECT THE CHILD FROM SUCH HAZARDS AS POISON
AND TRAFFIC. SEE ALSO ICORE IVOCABULARY, IDAILY ILIVING
ISKILLS, ISAFETY IEDUCATION, AND ISIGNS.
PROTOCOL MATERIALS 09 17
AUDIO AND VIDEO RECORDINGS OF BEHAVIOR WHICH
THE PRESERVICE AND INSERVICE TEACHER
EDUCATION STUDENT CAN HEAR, OBSERVE, AND
ANALYZE. SEE ALSO ICLASSROOM IOBSERVATION
ITECHNIQUES.
PSYCHOLOGICAL TESTS 09
SEE ALSO IPERSONALITY AND IPROJECTIVE ITESTS.
*PSYCHOMOTOR SKILLS
USE IPERCEPTUAL IMOTOR ILEARNING. SEE ALSO
IDEXTERITY, IEYE IHAND ICOORDINATION, AND IVISUAL IMOTOR
IINTEGRATION.
*PUBLIC OPINION
USE IPUBLIC IATTITUDES.
PUNCTUATION 13
PUERTO RICANS 05
PUPPETS 15 17
PUZZLES 15 17
SEE ALSO ICROSSWORD IPUZZLES, IGAMES, IPART IWHOLE
IRELATIONSHIPS, AND IRIDDLES.
RACIAL ATTITUDES 04 08
INCLUDES RACIAL UNDERSTANDING. SEE ALSO
IDISCRIMINATORY IATTITUDES.

RAISED LINE DRAWINGS 15 17
RATING SCALES 09
SEE ALSO IBEHAVIOR IRATING ISCALES.
RATIO 13
READINESS 03 19
THE MATURATIONAL LEVEL AT WHICH A CHILD HAS DEVELOPED
THE SENSORY AND COGNITIVE SKILLS NECESSARY FOR
MASTERING STRUCTURED LEARNING TASKS, IS INTERESTED
IN LEARNING, AND IS ABLE TO PERCEIVE THE PURPOSE AND
SIGNIFICANCE OF WHAT IS BEING TAUGHT. SEE ALSO
IMATHEMATICS IREADINESS, IPREREADINESS, AND IREADING
IREADINESS.
READING 13
SEE ALSO ICHORAL AND IDEVELOPMENTAL
IREADING, ILINGUISTICALLY IBASED IMATERIALS, IPHONICS,
IREMEDIAL IREADING, ISIGHT IMETHOD, ISIGHT IVOCABULARY,
ISPEED IREADING, IVOCABULARY, AND IWORD IRECOGNITION.
*READING ABILITY
USE IREADING ISKILLS.
READING COMPREHENSION 13
READING DIAGNOSIS 09
*READING MATERIALS
USE IBASAL IREADING ISERIES, IBRAILLE IBOOKS,
IBRAILLE IMATERIALS, ICOMIC IBOOKS, IHIGH
USE IBASAL IREADING ISERIES, IBRAILLE IBOOKS
OR IMATERIALS, ICOMIC IBOOKS, IHIGH IINTEREST ILOW
2 IVOCABULARY IMATERIALS, ILARGE ITYPE IBOOKS OR
2 IMATERIALS, ILINGUISTICALLY IBASED IMATERIALS,
2 IPREPRIMERS, ISUPPLEMENTARY IREADING IMATERIALS, OR
2 ITEXTBOOKS.
1 READING READINESS 19
1 READING SKILLS 13
2 [illegible]

4 IVOCABULARY, IWORD IATTACK, AND IWORD IRECOGNITION.
4 INCLUDES SKIMMING.
1 READING TESTS 09
1 REALIA 15 16
3 *REASONING
2 USE IABSTRACT IREASONING, ICONVERGENT, IDIVERGENT, OR
4 ILOGICAL ITHINKING, OR IPROBLEM ISOLVING.
1 REBUS 15 17
2 FOR OR ABOUT READING MATERIALS IN WHICH PICTURES
4 ARE USED IN PLACE OF WORDS.
1 RECEPTIVE LANGUAGE 13
2 THE COMPONENT OF LANGUAGE ENCOMPASSING AN
4 INDIVIDUAL'S COMPREHENSION OF VERBAL,
4 WRITTEN, OR OTHER FORMS OF COMMUNICATION.
4 SEE ALSO ILISTENING AND IREADING
4 ICOMPREHENSION, AND IEXPRESSIVE ILANGUAGE.
3 *RECORDS (PHONOGRAPH)
2 USE IPHONOGRAPH IRECORDS.
1 RECREATION 13
2 SEE ALSO IGAMES, IHOBBIES, IOUTDOOR
4 IEDUCATION, AND IPLAYGROUND IACTIVITIES.
3 *REEL TO REEL TAPES
2 USE IAUDIO ITAPES.
1 REFERENCE MATERIALS 15 16
2 SEE ALSO IBIBLIOGRAPHIES, ICATALOGS,
2 IDICTIONARIES, IDIRECTORIES, IENCYCLOPEDIAS, AND
2 IINDEXES.
1 REHABILITATION 10
2 SEE ALSO IVOCATIONAL IREHABILITATION.
1 REINFORCEMENT 10 14
2 SEE ALSO INEGATIVE IREINFORCEMENT AND IREWARDS.
1 RELIGION 13
1 REMEDIAL INSTRUCTION 10 13 14
1 REMEDIAL READING 10 13
3 *REPRODUCTION
2 USE ISEX IEDUCATION OR IPREGNANCY.
1 REPRODUCTION MASTERS 15 17 18
3 *RESEARCH METHODOLOGY
2 USE IRESEARCH IDESIGN.
1 RESOURCE GUIDES 10
2 A GUIDE OR WRITTEN PLAN TO A COLLECTION OF MATERIALS,
4 INCLUDING A VARIETY OF LEARNING EXPERIENCES, RESOURCES
4 AND EVALUATION TECHNIQUES.
3 *RETENTION
2 USE IMEMORY.
1 REVERSALS 03
2 MIRROR-LIKE INVERSIONS IN READING, WRITING, OR
4 SPEECH (CLUTTERED) WHICH ARISE FROM PROBLEMS IN
4 ORIENTATION.
1 REWARDS 10 14
2 USE FOR TOKEN REINFORCEMENT.
1 RHYMES 15 16
2 SEE ALSO INURSERY IRHYMES.
1 RHYTHMS 13
2 MATERIALS FOR OR ABOUT RHYTHMS ACTIVITIES, WHICH
4 CONSIST OF SINGING GAMES AND BASIC MOVEMENTS PERFORMED
4 IN VARIOUS TEMPOS AND SPACE PATTERNS TO MUSICAL
4 ACCOMPANIMENT.
1 RIDDLES 15 16
2 SEE ALSO IGAMES AND IPUZZLES.
1 ROCKS 13
1 ROLE PLAYING 10 14
2 SEE ALSO ISIMULATION.
1 RURAL ENVIRONMENT 04
1 SAFETY EDUCATION 13
2 LEARNING EXPERIENCES DESIGNED TO CREATE AN AWARENESS

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4      OF THE HAZARDS OF EVERYDAY LIVING AND TO DEVELOP
4      THE KNOWLEDGE, HABITS, AND SKILLS NECESSARY
4      TO FUNCTION SUCCESSFULLY IN THE PRESENCE OF HAZARDS.
4      SEE ALSO (PROTECTIVE (VOCABULARY.
3   *SCHOOL BUILDINGS
2      USE (BUILDING (DESIGN.
3   *SCHOOL INTEGRATION
2      USE (RACIAL (INTEGRATION.
3   *SCHOOLS
2      USE (COLLEGES, OR (DAY, (PUBLIC, AND (VOCATIONAL
4      (SCHOOLS.
3   *SCHOOLS FOR THE DEAF
2      USE (AURALLY (HANDICAPPED AND (DAY (SCHOOLS.
3   *SCHOOLS FOR THE VISUALLY HANDICAPPED
2      USE (DAY (SCHOOLS AND (VISUALLY (HANDICAPPED.
1   SCIENCE                                              13
2      SEE ALSO (ANATOMY, (ASTRONOMY, (BIOLOGY, (BOTANY,
4      (CHEMISTRY, (EARTH (SCIENCES, (GEOGRAPHY, (GEOLOGY,
4      (METEOROLOGY, (OCEANOGRAPHY, (PHYSICS, (PHYSIOLOGY,
4      (PHYSICAL (SCIENCES, AND (SPACE (SCIENCES.
1   SCIENCE FICTION                                      14
1   SCIENTIFIC METHOD                                    14
2      INCLUDES DEDUCTIVE AND INDUCTIVE METHODS. SEE ALSO
4      (EXPERIMENTS.
1   SCOUTING                                             13
2      INCLUDES (BOY (SCOUTS, (GIRL (SCOUTS, (CAMPFIRE (GIRLS,
2      ETC.
1   SCREENING TESTS                                      09
2      INSTRUMENTS FOR THE IDENTIFICATION OF
4      PROBLEMS FOR THE PURPOSE OF PLACEMENT,
4      TREATMENT, OR SPECIAL INSTRUCTION.
2      USE FOR PROJECTION SCREENS.
1   SCULPTURE                                            13 15 17
1   SEASONS                                              13
2      SEE ALSO (TIME (PERSPECTIVE AND (TIME (TELLING.
3   *SECOND LANGUAGE
2      USE (ENGLISH ((SECOND (LANGUAGE).
3   *SEIZURES
2      USE (EPILEPSY.
1   SELF CARE SKILLS                                     13 18
2      ACTIVITIES OR MATERIALS FOR INSTRUCTION IN DAILY SANITARY
4      AND GROOMING HABITS (TOILETING, DRESSING, EATING,
4      HYGIENE). SEE ALSO (CLOTHING.
1   SELF CONCEPT                                         08
2      THE INTERNALIZED VIEW OF ONE'S WORTH. INCLUDES SELF
4      CONFIDENCE. SEE ALSO (EMOTIONAL (ADJUSTMENT.
1   SELF CONTROL                                         08
2      INCLUDES SELF DISCIPLINE AND TEMPER CONTROL.
1   SELF EXPRESSION                                      13
2      SEE ALSO (CREATIVITY.
3   *SELF HELP
2      USE (SELF (CARE (SKILLS.
3   *SELF IDENTIFICATION
2      USE (BODY (IMAGE OR (SELF (CONCEPT.
1   SELF PACING MATERIALS                                15 17 18
2      MATERIALS, INCLUDING TEST OR QUIZ ITEMS, ALLOWING
4      INDIVIDUAL PROGRESS BUT WITHOUT THE RETEACHING
4      FEATURES FOUND IN PROGRAMMED MATERIALS.
4      SEE ALSO (AUTOINSTRUCTIONAL (AIDS.
1   SENIOR HIGH GRADES                                   19
2      GRADES 10-12.
1   SENSITIVITY TRAINING                                 18 14
2      SEE ALSO (GROUP (THERAPY.
1   SENSORY AIDS                                         16
2      SEE ALSO (ELECTROMECHANICAL, (HEARING AND (MOBILITY
2      [illegible]
1   SENSORY INTEGRATION                                  07 11
2      SEE ALSO (MULTISENSORY (LEARNING AND (VISUAL (MOTOR
4      (INTEGRATION.
1   SENSORY TRAINING                                     10 11 14
2      ACTIVITIES INTENDED TO EVOKE RESPONSES TO
4      SPECIFIC STIMULI. SEE ALSO (AUDITORY AND
4      (VISUAL (TRAINING, (PERCEPTUAL TERMS, AND (AUDITORY,
4      (GUSTATORY, (OLFACTORY, (TACTUAL, AND (VISUAL
4      (PERCEPTION.
3   *SENTENCE STRUCTURE
2      USE (GRAMMAR.
1   SEQUENTIAL APPROACH                                  14
2      A STRUCTURED SEQUENCE OF INSTRUCTIONAL
4      ACTIVITIES.
1   SERIAL ORDERING                                      07
2      MATERIALS REQUIRING LOGICAL ARRANGEMENT OF ITEMS BY
4      TIME OR EVENT. USE FOR SEQUENCING AND SERIATION.
1   SERIES                                               18
2      SEE ALSO (BASAL (READING (SERIES.
1   SET THEORY                                           13
1   SETS                                                 13
3   *SEVERELY MENTALLY HANDICAPPED
2      USE (CUSTODIAL (MENTALLY (HANDICAPPED.
1   SEX EDUCATION                                        13
2      INCLUDES CONTRACEPTION AND REPRODUCTION. SEE ALSO
4      (FAMILY (LIFE (EDUCATION, (PREGNANCY, AND (VENEREAL
4      (DISEASES.
1   SHAPES                                               13 15
2      INCLUDES SHAPE CONSTANCY.
1   SHORT VOWELS                                         13
2      INCLUDES TWINS.
1   SIGHT CONSERVATION                                   10
1   SIGHT METHOD                                         [illegible]
2      METHOD OF TEACHING READING BASED ON RECOGNITION AND
4      PRONUNCIATION OF WHOLE WORDS.
1   SIGHT VOCABULARY                                     18
2      SEE ALSO (WORD (RECOGNITION.
1   SIGN LANGUAGE                                        14
2      SEE ALSO (CUED (SPEECH, (FINGER (SPELLING,
4      (MANUAL (COMMUNICATION, AND (NONVERBAL (COMMUNICATION.
1   SIGNS                                                13 15
2      MATERIALS FOR TEACHING TRAFFIC AND WARNING SIGNS.
4      SEE ALSO (PROTECTIVE (VOCABULARY AND (SAFETY
4      (EDUCATION.
1   SIMULATION                                           14
2      DUPLICATION OF THE ESSENTIAL CHARACTERISTICS OF A TASK
4      OR SITUATION.
1   SIZES                                                13 15
2      FOR MATERIALS CONCERNING SIZE OR VOLUME
4      DISCRIMINATION. INCLUDES SIZE CONSTANCY. SEE
4      ALSO (CONSERVATION ((CONCEPT).
3   *SKILLS
2      USE (ALPHABETIZING, (COMMUNICATION, (DAILY
4      (LIVING, (DICTIONARY, (FINE (MOTOR, (GROSS (MOTOR,
4      (LIBRARY, (LISTENING, (MAP, (MECHANICAL, (READING,
4      (SELF (CARE, (SOCIAL, (SPEECH, OR (WRITING (SKILLS, OR
4      (PERCEPTUAL (MOTOR (LEARNING.
3   *SKIMMING
2      USE (READING (SKILLS.
1   SLIDES                                               15 17
2      A MOUNTED TRANSPARENCY, EITHER FILM OR GLASS, INTENDED
4      FOR PROJECTION OR VIEWING BY TRANSMITTED LIGHT. SEE ALSO
4      (STEREOSCOPIC (SLIDES.
3   *SOCIAL ATTITUDES
2      USE (INTERPERSONAL (ATTITUDES OR (PUBLIC (ATTITUDES.
1   [illegible]                                          85
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     THE PROCESS WHEREBY INTERPERSONAL RELATIONSHIPS ARE
     LEARNED DURING GROWTH TO ADULTHOOD. SEE ALSO IMANNERS
     AND ISOCIAL ISKILLS.
  *SOCIAL SCIENCES
     USE ICITIZENSHIP, IDEMOGRAPHY, IECONOMICS,
     IGEOGRAPHY, IHISTORY, ISOCIAL ISTUDIES, OR ISOCIOLOGY.
                                                         12 13
  SOCIAL SKILLS
                                                         13
  SOCIAL STUDIES
     SOCIAL STUDIES CONSIST OF ADAPTATIONS OF KNOWLEDGE FROM
     THE SOCIAL SCIENCES FOR TEACHING PURPOSES AT THE
     ELEMENTARY AND SECONDARY LEVELS OF EDUCATION. SEE ALSO
     ICITIZENSHIP, ICOMMUNITY IHELPERS, ICONSUMER IEDUCATION,
     AND INEIGHBORHOOD.
  *SOCIALIZATION
     USE ISOCIAL ISKILLS OR IDEVELOPMENT.
  *SOCIALLY DEVIANT BEHAVIOR
     USE IDELINQUENCY.
                                                         01 02
1 SOCIALLY MALADJUSTED
2    INDIVIDUALS HAVING UNUSUAL DIFFICULTIES WITH SOCIAL
4    DEVELOPMENT.
                                                         13
1 SOCIOLOGY
                                                         15 17 18
1 SONGS
3 *SOUND DISCRIMINATION
2    USE IAUDITORY IPERCEPTION.
                                                         18
1 SOUNDS
2    SOUNDS ASSOCIATED WITH DAILY LIFE.
                                                         13
1 SPACE SCIENCES
3 *SPASTICITY
2    USE ICEREBRAL IPALSY.
                                                         11
1 SPATIAL ORIENTATION
2    ABILITY TO RELATE ONESELF OR OBJECTS TO SURROUNDING
     SPACE. SEE ALSO IBODY IIMAGE AND IKINESTHETIC
4    IPERCEPTION.
  *SPATIAL RELATIONSHIP
     USE ISPATIAL IORIENTATION.
  *SPECIAL SCHOOLS
     USE IDAY ISCHOOLS.
                                                         18
1 SPEECH
3 *SPEECH EVALUATION
2    USE ISPEECH ITESTS OR IEVALUATION AND ISPEECH ITHERAPY.
                                                         01
1 SPEECH HANDICAPPED
3 *SPEECH READING
2    USE ILIPREADING.
                                                         12
1 SPEECH SKILLS
2    SEE ALSO IARTICULATION, IINTONATION, IVERBAL IABILITY,
4    AND IVOICE IDISORDERS.
                                                         09
1 SPEECH TESTS
                                                         10
1 SPEECH THERAPY
2    USE FOR SPEECH CORRECTION.
                                                         13 14
1 SPEED READING
                                                         13
1 SPELLING
                                                         13
1 SPORTS
2    INCLUDES ATHLETICS. SEE ALSO IPHYSICAL
4    IEDUCATION AND IRECREATION.
                                                         13
1 SPORTS STORIES
                                                         09
1 STANDARDIZED TESTS
3 *STANDARDS
2    USE IADMISSION ICRITERIA AND IMORAL IVALUES.
  STATE AGENCIES
2    USE IAGENCIES.
                                                         15 17 18
1 STENCILS
2    SEE ALSO IDUPLICATING IMASTERS, IREPRODUCTION IMASTERS.
                                                         11
1 STEREOPSIS
                                                         15 17
1 STEREOSCOPIC SLIDES
3 *STIMULI
2    USE IAUDITORY, IHAPTIC, ITACTUAL, IVERBAL, OR
4    IVISUAL ISTIMULI.
3 *STORIES
2    USE IADVENTURE ISTORIES, IANIMAL ISTORIES, IFANTASY,
4    IMYSTERY ISTORIES, IMYTHOLOGY, ISCIENCE IFICTION, OR
4    ISPORTS ISTORIES.
                                                         15 17
1 STORY CARDS
                                                         14
1 STORY TELLING
3 *STUDENT ALIENATION
2    USE IALIENATION.
                                                         15
1 STUDY GUIDES
                                                         15 17
1 STUDY PRINTS
                                                         12
1 STUDY SKILLS
                                                         01
1 STUTTERING
                                                         01
1 SUBSTITUTION
2    ARTICULATORY DEFECT.
                                                         13
1 SUBTRACTION
                                                         04
1 SUBURBAN ENVIRONMENT
                                                         13
1 SUFFIXES
                                                         13
1 SUMMARIZING
1 SUPPLEMENTARY
                                                         13
1 SYLLABICATION
                                                         13
1 SYNONYMS
                                                         13
1 SYNTAX
2    SEE ALSO IGRAMMAR.
3 *SYNTHESIZING IDEAS
2    USE ICONVERGENT ITHINKING.
                                                         16
1 TACHISTOSCOPES
2    DEVICE OR MACHINE FOR CONTROLLING ILLUMINATION
4    OR DURATION OF PROJECTED IMAGES.
                                                         15
1 TACTILE MATERIALS
                                                         11
1 TACTUAL PERCEPTION
2    USE FOR HAPTIC PERCEPTION.
                                                         14
1 TACTUAL STIMULI
                                                         09
1 TACTUAL TESTS
                                                         15 17
1 TALKING BOOKS
                                                         15 17
1 TAPE CARTRIDGES
                                                         15 17
1 TAPE CASSETTES
                                                         16
1 TAPE RECORDERS
2    INCLUDES CASSETTE TAPE RECORDERS.
3 *TAPES
2    USE IAUDIO OR IVIDEO ITAPES.
                                                         15
1 TEACHER DEVELOPED MATERIALS
2    INSTRUCTIONAL MATERIALS PREPARED BY TEACHERS
4    OR INSTRUCTIONS ABOUT SUCH MATERIALS
4    PREPARATION.
                                                         15 18
1 TEACHER EDITIONS
2    SEE ALSO IMANUALS.
3 *TEACHER RESOURCES
2    USE IRESOURCE IGUIDES OR IINSTRUCTIONAL IRESOURCES.
3 *TEACHING GUIDES
2    USE IMANUALS.
                                                         16
1 TEACHING MACHINES
2    SEE ALSO IAUTOINSTRUCTIONAL IAIDS, IPROGRAMMED
4    IMATERIALS, AND ISELF IPACING IMATERIALS.
                                                         13 19 20
1 TECHNICAL EDUCATION
2    PREPARATION FOR OCCUPATIONS BETWEEN THE
4    SKILLED TRADES AND THE PROFESSIONS.
3 *TEENAGERS
2    USE IADOLESCENTS.
                                                         16
1 TELEPHONE COMMUNICATION SYSTEMS
2    INCLUDES HARDWARE AS WELL AS APPLICATION
4    TECHNIQUES. SEE ALSO IHOMEBOUND.
                                                         14
1 TELEVISED INSTRUCTION
2    USE FOR CLOSED CIRCUIT TELEVISION
4    INSTRUCTION. SEE ALSO IEDUCATIONAL
4    ITELEVISION.
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3   •TEMPERATURE
2       USE !MEASUREMENT. SEE ALSO !METEOROLOGY AND !WEATHER.
3   •TEMPORAL ORIENTATION
2       USE !TIME !TELLING OR !TIME !PERSPECTIVE.
1   TEXTBOOKS                                           16 18
3   •THERAPY
2       USE !ART. !CRISIS. !GROUP. !HEARING. !MUSIC.
2       !OCCUPATIONAL. !PHYSICAL. AND !SPEECH !THERAPY OR
2       !BIBLIOTHERAPY.
3   •THOUGHT PROCESSES
2       USE !ABSTRACT !REASONING. !COGNITIVE
4       !PROCESSES. AND !CONVERGENT. !DIVERGENT.
4       OR !LOGICAL !THINKING.
1   THREE DIMENSIONAL AIDS                              16
1   TIME PERSPECTIVE                                    07 13
2       SEE ALSO !AUDITORY AND !VISUAL !SEQUENCING. !CALENDARS.
4       AND !SEASONS.
1   TIME TELLING                                        13
3   •TOILETING
2       USE !SELF !CARE !SKILLS.
3   •TOKEN REINFORCEMENT
2       USE !REWARDS.
1   TOOLS                                               16
1   TOTAL COMMUNICATION                                 14
2       SIMULTANEOUS USE OF FINGER SPELLING. SIGN LANGUAGE.
2       AUDIBLE SPEECH AND LIP READING TO FOSTER LANGUAGE
2       DEVELOPMENT WITH DEAF PEOPLE.
3   •TOUCH
2       USE !TACTUAL TERMS.
1   TOYS                                                18
1   TRACKING                                            14
3   •TRAFFIC SAFETY
2       USE !DRIVER !EDUCATION. !PROTECTIVE
4       !VOCABULARY. OR !SAFETY !EDUCATION.
1   TRAINABLE MENTALLY HANDICAPPED                      01
2       IQ 25-50.
3   •TRAINING TECHNIQUES
2       USE !TEACHING !METHODS.
1   TRANSPARENCIES                                      18
1   TRANSPORTATION                                      13
3   •TWINS
2       USE !SIBLINGS.
1   TYPEWRITING                                         13
1   UNIT PLANS                                          18
2       TEACHING PLANS FOR A MAJOR SUBDIVISION OF INSTRUCTION
4       WITHIN A COURSE; A UNIT IS GENERALLY COMPOSED OF
4       SEVERAL TOPICS AND INCLUDES CONTENT AND
4       LEARNING EXPERIENCES.
1   URBAN ENVIRONMENT                                   04
3   •VALUES
2       USE !MORAL !VALUES.
1   VERBAL ABILITY                                      12
2       SEE ALSO !COMMUNICATION !SKILLS. !EXPRESSIVE !LANGUAGE.
4       !LANGUAGE !ABILITY. AND !SPEECH !SKILLS.
1   VERBAL AUDITORY MATERIALS                           17 18
1   VERBAL COMMUNICATION                                12
2       SEE ALSO !SPEECH AND !SPEECH !SKILLS.
1   VERBAL LEARNING                                     06
1   VERBAL STIMULI                                      14
1   VERBAL TESTS                                        09
1   VIBROTACTUAL STIMULI                                14
2       SEE ALSO !SENSORY !AIDS AND !TACTUAL !STIMULI.
1   VIDEO TAPES                                         18 17
1   VISIBLE SPEECH                                      14
2       THE TRANSLATION OF SPEECH INTO A READABLE
4       FORM. THE SOUND WAVES OF SPEECH ARE
4       TRANSFORMED FIRST INTO ELECTRICAL IMPULSES.
4       AND THESE IN TURN INTO FLASHES OF LIGHT
4       WHICH ARE PHOTOGRAPHED.
1   VISION                                              03
2       SEE ALSO !LOW !VISION TERMS.
1   VISION TESTS                                        09
3   •VISITING TEACHERS
2       USE !ITINERANT !TEACHERS.
1   VISUAL ACUITY                                       03
1   VISUAL CLOSURE                                      11
1   VISUAL DISCRIMINATION                               11
1   VISUAL FIGURE GROUND DISCRIMINATION                 11
3   •VISUAL FORM DISCRIMINATION
2       USE !SHAPES.
1   VISUAL IMAGERY                                      07 11
2       MENTALLY FORMING VISUAL IMAGES OF OBJECTS OR EXPERIENCES
4       NOT PRESENT TO THE EYE. INCLUDES VISUAL MEMORY.
1   VISUAL LEARNING                                     06
2       INSTRUCTION WHICH UTILIZES THE LEARNER'S SENSE OF VISION
2       AS THE PRIMARY SENSORY STIMULUS MODE.
1   VISUAL MEMORY                                       11
1   VISUAL MOTOR INTEGRATION                            11
2       SEE ALSO !EYE !HAND !COORDINATION. !FINE
4       !MOTOR !SKILLS. AND !SENSORY !INTEGRATION.
1   VISUAL PERCEPTION                                   11
1   VISUAL SEQUENCING                                   07 11
2       ABILITY TO IDENTIFY AND ORGANIZE VISUAL STIMULI IN A
4       TEMPORAL ORDER. SEE ALSO !SERIAL !ORDERING AND !VISUAL
4       !IMAGERY.
1   VISUAL STIMULI                                      14
1   VISUAL TRACKING                                     11
1   VISUAL TRAINING                                     10 14
1   VISUALLY HANDICAPPED                                01
2       SEE ALSO !BLIND AND !PARTIALLY !SIGHTED.
1   VISUALLY HANDICAPPED MOBILITY                       10 13
1   VOCABULARY                                          13
2       SEE ALSO !ANTONYMS. !CORE !VOCABULARY.
4       !GLOSSARIES. !HOMONYMS. !PROTECTIVE !VOCABULARY.
4       !SIGHT !VOCABULARY. !SYNONYMS. AND !WORD TERMS.
1   VOCATIONAL ADJUSTMENT                               08 25
2       SEE ALSO !EMPLOYMENT. !JOB. AND !OCCUPATIONAL
4       TERMS.
1   VOCATIONAL APTITUDE TESTS                           09
1   VOCATIONAL EDUCATION                                13 19 20 25
2       FORMAL PREPARATION FOR AN OCCUPATION NOT REQUIRING
4       THE BACCALAUREATE DEGREE. SEE ALSO !BUSINESS.
4       !PREVOCATIONAL. AND !TECHNICAL !EDUCATION.
4       !INDUSTRIAL !ARTS AND !ON THE !JOB !TRAINING.
2       SEE ALSO !INTEREST !SCALES AND !OCCUPATIONS.
3   •VOCATIONAL OPPORTUNITIES
2       USE !EMPLOYMENT !OPPORTUNITIES.
1   VOCATIONAL REHABILITATION                           10 25
1   VOCATIONAL SCHOOLS                                  21 25
2       INCLUDES VOCATIONAL TRAINING CENTERS.
4       SEE ALSO !TECHNICAL !EDUCATION.
1   VOICE DISORDERS                                     01
2       INCLUDES VOICE QUALITY.
3   •VOLUME
2       USE !MEASUREMENT.
1   VOWELS                                              13
2       SEE ALSO !MEDIAL. !INITIAL. !LONG. AND !SHORT !VOWELS.
1   WEATHER                                             13
2       SEE ALSO !METEOROLOGY.
3   •WEIGHT
2       USE !BODY !WEIGHT OR !MEASUREMENT.
4   [illegible]
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USE $MEASUREMENT. SEE ALSO $CONSERVATION ($CONCEPT).

WHEEL CHAIRS 16

SEE ALSO $MOBILITY $AIDS.

*WILDLIFE

USE $OUTDOOR $EDUCATION.

WORD ATTACK 13

WORD RECOGNITION 13

SEE ALSO $READING $SKILLS AND $SIGHT $VOCABULARY.

*WORD STUDY SKILLS

USE $WORD $ATTACK.

*WORK ATTITUDES

USE $VOCATIONAL $ADJUSTMENT.

WORK STUDY PROGRAMS 13 14 20

SEE ALSO $PREVOCATIONAL AND $VOCATIONAL $EDUCATION.

WORKBOOKS 15 16

PRACTICE MATERIALS, USUALLY IN PAPERBACK FORM, WHICH ACCOMPANY OR COMPLEMENT A TEXTBOOK.

WORKSHEETS 15 16

WORKTEXTS 15

ALTERNATING TEXT AND EXERCISE MATERIALS BOUND TOGETHER, USUALLY IN CONSUMABLE PAPERBACK FORM.

WORLD HISTORY 13

WRITING SKILLS 12

INCLUDES COMPOSITION SKILLS AND CREATIVE WRITING, BUT NOT HANDWRITING.

ZOOLOGY 13

IDENTIFICATION INFORMATION

I. National Identification Number_____ (1)*

✓Title: Sound and Fancy (L 5) (2)

Series Title: Language Arts (3-4) Series Number: (4)

✓Author(s): Longstreet & Sutherland (5) Publication/Copyright Date: c 1970 (6)

National Source: H. Wilson Corp (10)

Address: 555 West Taft, South Holland Illinois 60473 (10)

Price: $15. (9) Catalog Date: (9)

CEC ERIC Descriptors (use thesarus) (11)

[PLEASE USE DESCRIPTORS TO COMPLETE THIS FORM]

II. Classification

Educational Information

Primary Mode-input auditory Secondary --

Method of Output Optional

Area of Focus: Listening Communication Skills, Auditory Discrim & Percept

Pre-requisite Skills auditory memory logical thinking
(at least one descriptor from each of group A & group B)

Descriptive Comments Teacher could ask for verbal, manual, kinesthetic (12 &14) or no output, depending on own objectives. Accent is on sounds in environment, utilizes many sound effects

Use: Instructional Level Primary Minimum CA 5

Interest Level Primary Minimum MA 5

Audio Presentation Method storytelling/simulation Child-use ✓ Teacher-directed ✓

Materials Use Instructions: Teacher's Manual yes ✓ no____

1. Objectives Presented to improve listening abilities

✓ Cognitive to encourage awareness of sound environment
__ Phychomoter to stimulate creative thinking
✓ Affective

Follow-up Activities:
Teacher directed required____ suggested ✓ none____
Child-use required____ suggested ✓ none____

Lessons (check one) singular____ multiple ✓ sequential____

Approximate time per lesson 15" per side, varying time per segment (1" to 10") Total number of lessons 4 sides, 14 segments

Setting(s) individual ✓ small group ✓ large group ✓

Special Features of Materials (13)

USE DESCRIPTORS!!

Equipment Information

Equipment needed cassette recorder (or reel-to-reel tape recorder or phonograph) (8)

Audio format (cassette, records, etc.) cassette (also available on 33⅓ records & reels)

How many of each? 2

Time per cassette, record, etc. 30 min. (15 min per side)

Special features of equipment

*Numbers indicate parallel item on NIMIS
Master Record form

Classified by P.S.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward

515—353-7836

AN INTRODUCTION TO

SUB-CHANNEL RADIO

(KEYED TO VOLUME 1, No. III of the

AUDIO NEWSLETTER

A Coordinated Affiliation of Special Education Network Units
Bureau of Education for the Handicapped—U.S. Office of Education—An equal Opportunity Employer

I. WHAT IS IT?

Every FM radio station has the potential of offering at least two sub-channel services. One sub-channel is generally used for stereo broadcasting. The second is often not in use; if it is, it is generally used by commercial radio stations on a rental basis to provide background music in department stores, doctors' offices, etc. Non-commercial FM radio stations, licensed to public school systems and to colleges and universities, can use the second (and perhaps the first) sub-channel to provide instruction and information for blind and physically handicapped individuals, and to provide instructional and continuing education programming to educators, doctors, nurses, engineers and other professional groups.

II. HOW DOES IT WORK?

Classroom instruction, seminars and conferences are produced live or pre-recorded for broadcast over the sub-channel station. The recipients of this information must have a pre-tuned, single-frequency receiver set at the sub-channel frequency. The signal received cannot be heard by the general public on their "home" receivers. Each receiver presently costs approximately $50. Signals are receivable with good quality within a 50 mile radius, depending upon terrain, power, and antenna height. Groups of individuals may receive the information through a centralized receiver located in a classroom, conference room, or auditorium while others take part in the conference or instruction with an individual receiver in the home or office.

III. WHAT IS TWO-WAY SUB-CHANNEL?

One-way radio is just as the name implies: Information is broadcast by the radio station and received by the listener. Any and all questions from the listener generated by the information broadcast must be presented by telephone. One-way sub-channel radio is the most efficient method of transmitting hard information or reading materials to specific individuals in their homes or offices.

The two-way radio technique preserves the all-important instructor/student relationship, since an interchange of questions, answers, and discussions takes place almost as easily as it does when individuals are face to face. It is also important for those considering the possibilities of two-way radio to realize that there is no lack of visual components. Visual aids can be used extensively, since the participating students gather in groups where two-way radio facilities are available. The visual components include mimeographed material, videotapes, and projected transparencies distributed in advance to each participating group. All participants view and discuss a given slide, videotape performance, outline or chart at the same time.

IV. WHAT KINDS OF PROGRAMS DOES SUB-CHANNEL BROADCAST?

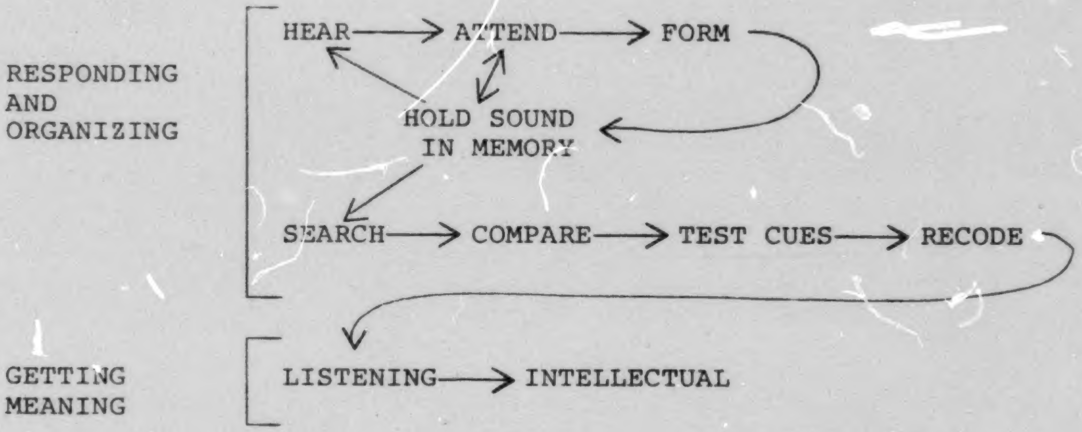
To give you a sample of programming currently available over the sub-channel service, see Appendix A, from the November, 1973, program guide of the Minnesota Radio Talking Book service.

V. WHO CAN I CONTACT FOR MORE INFORMATION?

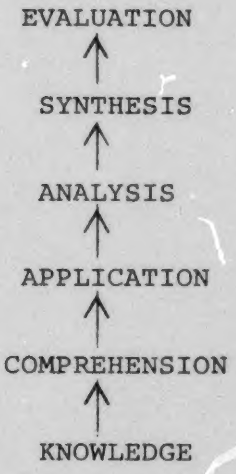
Mr. Richard D. Estell
General Manager
WKAR AM and FM
112 Auditorium Building
Michigan State University
East Lansing, Michigan 48824

LISTENING AND AUDING

"Listening is the process of reacting to, interpreting, and relating the spoken language in terms of past experiences and future courses of action. Viewed in this manner, it becomes more than passive participation, more than just hearing."(1)


RESPONDING AND ORGANIZING
HEAR
ATTEND
FORM
HOLD SOUND IN MEMORY
SEARCH
COMPARE
TEST CUES
RECODE
GETTING MEANING
LISTENING
INTELLECTUAL

(2)


EVALUATION
SYNTHESIS
ANALYSIS
APPLICATION
COMPREHENSION
KNOWLEDGE

(3)

HEARING Speech Sounds

↓

LISTENING Auditory Analysis
Mental Reorganization
Association of Meaning

↓

AUDING Meaning (4)

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(1) Barbe, Walter B. and Robert M. Myers, *Developing Listening Ability in Children* (from Duker, Sam; *Teaching Listening in the Elementary School:Readings*), The Scarecrow Press, Metuchen, N.J., 1971, pg. 31.

(2) Lundsteen, Sara, *Listening, Its Impact on Reading and Other Language Arts*, National Council of Teachers of English, Urbana, 1971, pg. 43.

(3) Bloom, Benjamin S., et al, *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain*, David McKay Co., New York, 1956.

(4) Taylor, Stanford E., *Listening*, National Education Association, Washington, 1973.

S. Joseph Levine
November 1973

SECTION FIVE

AUDITORY LEARNING MATERIALS CATALOG

A major output of the Consortium on Auditory Learning Materials for the Handicapped was a catalog identifying appropriate audiovisual materials for auditory learning. Two different processes were initiated in an attempt to locate and report appropriate information for appropriate materials. A system input process involves identifying and classifying information about materials. A system output process involves preparing the information in its most useful form for the catalog user.

Both processes were reached utilizing Consortium member input. A major concern of the Consortium was input compatibility with CEC-ERIC. An input process similar to the one used by the Michigan State GLRSEIMC and consistent with the Evaluation Handbook was adopted at the November Consortium meeting. A series of three questionnaires were used with participating member units to determine the final output format.

Included on the following pages are documents explaining the input and output processes, and sample questionnaires. A copy of the final Consortium catalog is also included in this report.

CLASSIFYING AUDITORY INSTRUCTIONAL MATERIALS

This first part of the catalog is designed to provide a background and description of procedures developed by the Great Lakes Region Special Education Instructional Materials Center (GLRSEIMC) for the classification of auditory instructional materials. The procedures described are those employed by the GLRSEIMC in their Media and Materials Development Unit which has been undertaking the evaluation and development of auditory instructional materials for handicapped children.

Why classify materials? The classifying of instructional materials according to a systematic procedure establishes the foundation for numerous decisions that are often impossible without such a procedure. The ultimate decision that must be made is the appropriate matching of an instructional material with a specific learner. To make such a match demands either a) prior knowledge and use of the instructional material, b) an opportunity to "try out" a material with a learner, or c) precise information regarding the material and its potential use. Obviously, the first alternate (prior use of the material) is the most effective. A teacher who has used a material understands the dynamics of it and whether or not it is appropriate for the situation. With the many new materials becoming available each year, however, an individual teacher's knowledge and use of a high percentage of available materials is shrinking at a phenomenal rate. Teachers are finding that, though they are becoming familiar with many new materials, the number to choose from is insurmountable.

The second alternative (trying out a material) can be effective, but certainly not efficient. Which materials should you try? Can you "borrow" materials for use in your classroom on a trial basis? Where do you begin?

Making this second alternative more efficient depends on the information that is available to the teacher. If he has precise information about a material (the third alternative), he can select certain ones to try (second alternative), and after trying them he will be able to make future decisions based on experience (first alternative).

What should be included in a classification system? The GLRSEIMC began the task of designing a classification system for auditory instructional materials by examining existing systems and selecting aspects of each that "seemed" to be appropriate for classifying auditory instructional materials.(1) When the first model was developed it was used by staff members in an attempt to select specific instructional materials for use with learners involved in the field-testing program. This is the key in the development of this classification system. The system could only be considered usable if it would allow teachers and staff to make a learner/material match. Consequently, the system was modified and altered on numerous occasions. Each revision was made on the basis of either a) including an aspect that was found to be important in the decision making process, or b) deleting an aspect that did not contribute. It should be understood that the primary purpose in the development of this classification system was to support the ongoing efforts of the GLRSEIMC in selecting appropriate materials for field testing. It is felt that the current system meets a high percentage of our needs in this area.

Finally, the classification system was examined regarding its compatibility with national systems for describing instructional materials. Minimal modification was made in the system to accomplish this compatibility.(2)

The parts of the system. The following pages show all of the parts of the classification system that was developed.

AUDITORY INSTRUCTIONAL MATERIAL IDENTIFICATION INFORMATION

This is the actual form that is used for collecting information. It has been kept down to one page in length to make the classification task more viable for the person actually doing the classification.

CLASSIFICATION DESCRIPTORS for Auditory Instructional Material Identification Information Form

This set of descriptors forms the basis for the responses to be entered on the form. Through the use of specified descriptors it is possible to establish a consistency of information on all completed forms and it allows an interlock with terminology used on a national basis.(3) It should be understood, however, that the person classifying a material is not limited to this list of descriptors and can add others to the form as the need arises.

HOW TO USE THE AUDITORY INSTRUCTIONAL MATERIAL IDENTIFICATION INFORMATION FORM

This is the procedure for completing the form. Again, the outlining of a specified procedure further guarantees a consistency of information from form to form.

LEARNER CLASSIFICATION SYSTEM

The Learner Classification System (LCS) was developed as a meaningful descriptor to be included in the classification system. The LCS provides a single descriptor approach for providing information regarding the type of learner (developmentally) that can best benefit from a specific instructional material. The LCS is designed primarily to be used in conjunction with the classification system.

THE CATALOG

The Catalog itself is considered to be the final "output" product to provide the user, specifically teachers and teacher trainers, with easily retrievable information regarding auditory learning materials. The catalog form itself is a result of a survey of teachers regarding what information they have found to be most helpful in identifying useful teaching materials. Preferences regarding format were also sought. Information gathered during the material identification phase has been transposed to the "output" format. This final product is the result of these preferences and opinions of the actual intended audience.

---

(1) Of particular help was the Evaluation Handbook developed by the SEIMC/RMC Network. This Handbook provided an overview of a number of different systems that have been used and are currently being used in the area of special education.

(2) The concern was to provide maximum compatibility with the ERIC-CEC Clearinghouse. Small numbers in parentheses on the form indicate the parallel entry in the NIMIS Master Record, the system being designed by ERIC-CEC for national use.

(3) The primary base for descriptors was the ERIC Thesaurus for special education. The Thesaurus presents descriptors used in the ERIC system. All terms selected for use in the classification system were checked against the ERIC Thesaurus and in needed cases were modified to guarantee consistency. Since, however, the ERIC system does not yet accept materials in other than print form, certain descriptors appear in the classification system that have no parallel form in ERIC.

AUDITORY INSTRUCTIONAL MATERIAL
IDENTIFICATION INFORMATION

BEST COPY AVAILABLE

I. TITLE:

____ (2)

__________ (2) Series, title & number __________________ (3,4)

Author(s) ____________________ (5) Publication/Copyright date __________ (6)

SOURCES:

National ______________________________________ (10)
company address

Local ______________________________________ (11)
company address

Catalog price and date ____________ (9) National Identification Symbol ________ (1)

CEC ERIC Descriptors ______________________________ (12)

I. CLASSIFICATION:

	Primary	Secondary
Mode of Input	____________	____________
Type of format (note quantity of each)	____________	____________ (7)

Method of Output ______________________________

Curricular Area ____________________ Instructional Level ____________

Minimum: C.A. _____, M.A. _____, Stage _____ Interest Level ____________

Prerequisite Skills ______________________________

I. MATERIALS USE:

Instructional _____ OR Supplemental _____ Teacher's manual _____ yes _____ no

Objectives ______________________________

____

____

Lessons (include total number) singular _____ multiple _____ sequential _____

Time per lesson _____ Follow-up activities: required ____ suggested ____ none ____

Setting(s): individual _____ small group _____ large group _____

Instructions for Use ______________________________ (14)

____

______________________________ Teacher directed? _____ yes _____ no

Descriptive Comments ______________________________ (13,15)

____

____

____

____

Necessary equipment & possible special features ____________________ (8)

____

Classified by ____________________

Great Lakes Region Special Education Instructional Materials Center - 1/74

CLASSIFICATION DESCRIPTORS

FOR AUDITORY INSTRUCTIONAL MATERIAL IDENTIFICATION INFORMATION FORM

This descriptor list is to facilitate filling out Section II of the Auditory Instructional Material Identification Information form.

MODE OF INPUT - Primary and Secondary

Auditory
Visual
Tactile
Kinesthetic

TYPE OF FORMAT

Phonograph Records
Audiotape, reel-to-reel
Audiotape, cassette
Audiotape, flashcards

METHOD OF OUTPUT

- Verbal expression
- Non-verbal expression
  - manual (includes handwriting)
  - kinesthetic
  - tactile

CURRICULAR AREA

- Affective behavior/development
- Auditory perception
- Career education
- Communication skills
  - listening skills/comprehension
  - reading
  - verbal communication
- Consumer education
- Daily living skills
- Environmental education
- Health/safety education
- Literature
- Mathematics
- Motor skills
- Music
- Prevocational education
- Science
- Self-care skills
- Sex education
- Social skills
- Social studies
- Spelling
- Other (specify)

INSTRUCTIONAL LEVEL

Pre-school
Primary (grades K-3)
Intermediate (grades 4-6)
Advanced (grades 6-12)

MINIMUM C.A., M.A.

This item should be completed by showing the appropriate minimum ages in years as opposed to showing age according to grade level.

STAGE

This is an optional item to define the type of learner best suited to this material. For information regarding the definitions of learner stages, see Learner Classification System by Nancy Carlson and Cindy Lafkas.

INTEREST LEVEL

Pre-school
Primary (grades K-3)
Intermediate (grades 4-6)
Advanced (grades 6-12)

PREREQUISITE SKILLS

When using each descriptor, be sure to note level of competency: minimal, instructional, or competent.

- Auditory memory
  - auditory attention
  - auditory selective recall
  - auditory sequential memory
  - auditory imagery
- Visual perception
- Reading
- Mathematics
- Cognitive functions

NECESSARY EQUIPMENT

Tape recorder, reel-to-reel
Tape recorder, cassette
Audio flashcard reader
Phonograph
Filmstrip projector or viewer
Manipulative materials
Paper/pencil/crayons
Other (specify)

Great Lakes Region Special Education Instructional Materials Center - 1/74

HOW TO USE THE
AUDITORY INSTRUCTIONAL MATERIAL IDENTIFICATION FORM

The purpose of this documentation is to facilitate the use of the Auditory Instructional Material Identification form (examples of this form are included). The meaning and purpose of each item will be explained. Examples are given from a completed form.

The numbers, 1-15, which appear in parenthesis on the right-hand side of the form represent the field numbers of the cataloging system of the National Instructional Materials Information System (NIMIS). They are included here in order that entries of this system will parallel those of NIMIS and thus enhance its usability. While using this form, the numbers need not be given special consideration.

I. TITLE: *Beginner's Bird Box* (2)
(2)

Record the title of the particular material being classified as stated by the publisher, including subtitles and/or alternative forms, such as inversions, acronyms. Edition data, if applicable. If the material is a portion of a whole (i.e., one song from a record of many songs), state this, and include the titles of both.

Series, title & number (3,4)

For materials which are not part of a series, this does not apply, and, therefore, will be blank.

Author(s) *Julia K. Fenderson* (5)

Publication/Copyright date *1973* (6)

If more than two, list as "and others." May write in names of editor(s) if "none listed."

SOURCES:
National *Educational Insights* company *211 S. Hindry Ave. Inglewood, CA 90301* address (10)
Local *MSU-SEIMC* company *213 Erickson Hall Michigan State University* address (11)

Record names and addresses of national and local sources of supply or delivery systems or "not available."

Catalog price and date *$12.95, 1973* (9)

National Identification Symbol ________ (1)

Enter cost of material and the date of catalog in which the price was listed. May enter purchase price and date of purchase if catalog not applicable.

Refers to a unique national system identification symbol to be assigned by a national authority.

CEC ERIC Descriptors ________ (12)

Descriptors from ISIMDSE authority lists, as used by the Council for Exceptional Children, Educational Resources Information Center.

II. CLASSIFICATION:

With the Identification Information Form is a page entitled Classification Descriptors which is a list of descriptors from which to choose in completing the items in this section. Great care has been taken to use descriptors which would 1) offer guidelines and facilitate the ease and efficiency with which the form is used, both by the classifier and the reader, and 2) correspond to those used by ERIC. If the supplied list proves inadequate for a particular material, other descriptors may be used.

	Primary	Secondary
Mode of Input	*auditory*	*visual*
Type of format (note quantity of each)	*1 cassette*	*10 illustrated information cards* (7)

Size, speed or number of tracks may be recorded, if necessary.

May be filmstrip, book, objects, pictures, etc.

Method of Output *none*

Record the type of response that is required of the learner. For example, he may be asked to answer questions orally or tell a story (verbal expression), write responses, group objects, or mark choice (non-verbal, manual), dance or move around room (non-verbal, kinesthetic) or manipulate an abacus (non-verbal, tactile). If no response is demanded, "none" should be entered.

BEST COPY AVAILABLE

Curricular Area *science* **Instructional Level** *primary/interm.*
Minimum: C.A. *6*, **M.A.** *6*, **Stage** *II* **Interest Level** *primary/interm.*

See Classification Descriptors

Prerequisite Skills *auditory memory - all areas competent; reading - instructional*

The purpose here is to further clarify the appropriateness of a material for particular learners. Not all of the skills suggested on the list will be necessary for use of any one material. Select those required and note the highest necessary level of competency for each skill: minimal, instructional, or competent.

III. MATERIALS USE:
Instructional *x* OR **Supplemental** ____

Mark (x or ✓) after "instructional" if the material does indeed teach a concept, skill, etc. in and of itself or after "supplemental" if it is best used in conjunction with other instruction.

Teacher's manual *x* **yes** ____ **no**

Mark yes if manual is included with the purchased material; no, if not included. Direction for use, objectives, etc. printed on a record cover can constitute a teacher's manual.

Objectives *identification of 8 of 10 birds and their calls, birds eggs and silhouettes, characteristics of different birds, and ways birds help ecology*

May be quoted from author/publisher or may be as seen by the classifier.

Lessons (include total number) **singular** ____ **multiple** *8* **sequential** ____

Enter a number in one of the three blanks to show how many lessons are included in the material, i.e., singular 1 or multiple 2 or more, if the lessons can be used in any order, or sequential 2 or more, if the lessons are designed to be used in a definite order.

Time per lesson 10 min.

State in minutes per individual lesson.

Follow-up activities: required ___ suggested x none ___

Mark (x or ✓) in one of the three blanks to show whether follow-up activities are given by the author/publisher as an integral part of the lesson (required), as a possible supplement to the lesson (suggested) or not offered (none).

Setting(s): individual x small group x large group ___

May be suggested in manual or may be as seen by classifier. Many materials may be used in more than one of the three settings.

Instructions for Use designed for use in segments (by specific birds) - could be used in small group or individual study carrel - teacher's manual is complete and useful guide. (14)

Brief description of how the material is to be used.

Teacher directed? ___ yes x no

Mark to indicate whether or not a teacher is necessary during the actual lesson.

Descriptive Comments very adaptable - easy to listen to and follow directions - instructions are included to turn off cassette and repeat section - well illustrated picture and information cards - music and words to songs also included - well done (13,15)

Include information not found elsewhere on form. Do not include evaluative data. Suggested useful information: audio presentation method used (dramatization, direct information, drill, song, storytelling, etc.), voices, music, sound effects, etc. used, whether lessons seem to be pre/post testable, whether the auditory component could be used without the secondary component.

Necessary equipment & possible special features *cassette recorder* (8)

Some possible responses for this item are included in the Classification Descriptors. Other necessary equipment should be listed, such as earphones, opaque projector, etc. Noteworthy special features could be modifications such as the button box or any aspect of the material that might not be suitable for use with standard equipment.

Classified by *Marsha C. Smith*

LEARNER CLASSIFICATION SYSTEM

This paper describes an initial attempt to develop a system for specifying learner/instructional material interaction characteristics. The information collected on many evaluation forms and presented in catalogs of instructional materials allows the teacher to make a number of different decisions regarding the selection of appropriate instructional materials. The information, however, most often allows decisions based on physical characteristics and content area of the material. Decisions relating to matching materials with learner characteristics is usually spotty (reading level may be specified) and often too general to be useful (i.e., early elementary, trainable retarded, etc.). To make meaningful decisions about the appropriateness of a material for a specific learner demands a usable system for specifying the characteristics of learners that are appropriate for a specific material. An attempt at building such a system is described in this paper.

The Learner Classification System utilizes an organizational table that accommodates four "learner variables" and defines each variable at three different "learner stages." Such a system provides a single meaningful descriptor for understanding the type of learner for which a material is most appropriate. This descriptor (Stage I, Stage II, or Stage III) defines the mental age, chronological age, performance grade level, and level of emotional/social development. The following table presents the components of the Learner Classification System and the definition of characteristics at each stage.

LEARNER STAGES

LEARNER VARIABLES	STAGE I	STAGE II	STAGE III
MA (Mental Age)	2-7	7-11	11-
CA (Chronological Age)	3-	5-	9-
Performance Grade Level	Pre-School 1	K-6	1-12
Emotional/Social Development	egocentric	interaction with others	logical and egocentric thought

The four variables included in the Learner Classification System (MA, CA, Performance Grade Level, Emotional/Social Development) were selected on the basis of information about instructional materials that is a) easily accessible and generally available and b) critical to evaluation of auditory learning materials.

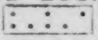
DISCUSSION OF LEARNER VARIABLES

Each of the four learner variables can be shown as a developmental process. Children operate at different developmental levels for each of the variables. The organization of these variables into definable stages is based on the finding that a high percentage of children are consistent in their developmental patterns. In other words, when a child operates at Stage I in mental ability, he will also be operating at Stage I for the other variables. Of course there are exceptions to this, but most children are found to be consistent. We are hopeful that these characteristics of learners, as we understand them, will provide a framework for matching a particular material appropriate to a particular child for an enjoyable auditory learning experience.

The following working definitions of learner variables and the stages for each are provided to clarify the interpretation and use of the Learner Classification System.

A. MENTAL AGE

Stage I: Mental Age 2-7 - A child who has a mental age between 2 and 7 has experienced the world through his motor senses. Therefore, his mental ability is directly related to his first-hand experiences. Depending upon the quality and quantity of these experiences, he is ready to move on to symbolic associations with these experiences. This is when he can learn language. This acquisition allows him to internalize action rather than being purely perceptual and motor. Between the mental ages of 2 and 6 the learner is largely egocentric both in language and social behavior. But around the mental age of 6 or 7, the learner begins to accommodate other's viewpoints and behaves more socially.

While he is acquiring language, the 2 to 7 year old is able to see only parts of an event rather than the entire event. He fixes his attention on only one aspect at a time and because of this he makes judgments based on what he sees. For example, a longer row of marbles looks like more to him even if it is in fact less in number.  This type of judging does not allow him to follow reasoning back to a beginning point. These reasoning abilities limit him in learning and therefore define more specifically the type of materials we choose for this learner. *In an auditory learning experience, the learner can focus only on one aspect of the auditory message at a time. This has a tendency to limit the learning experience unless repetition of key points is facilitated.*

Stage II: Mental Age 7-11 - Between the ages of 7 and 11, the child no longer bases his judgments on perception. He can follow a series of events, sees the changes, and can follow a line of reasoning back to starting point. He is a social being in specific situations only. His socialization has not yet generalized to society as a whole. The learner is not yet at a point where he can deal with hypotheses or purely verbal problems. He reasons through problems only with the aid of concrete objects and sequenced events. He is able to draw conclusions and solve problems correctly only if they are presented to him materially. Therefore, in choosing materials for this stage two learner, we can look for those materials which require thinking and are accompanied by concrete objects and events. *In an auditory learning experience, a learner at this stage can be expected to follow the message if provision is made to facilitate the learner having contact with some more concrete and/or interactive material during the time he is required to listen.*

Given cognitive functioning between the mental ages of 7 and 11, we find the vast majority of learners in elementary and special education classrooms fall into this area. This has necessitated a further examination of developmental characteristics which occur during transition periods of Stage II. For the sake of convenience, two sub-stages (IIa and IIb) have been designated. Children who are in the process of developing concrete learning abilities can be considered at the beginning level of the Stage (IIa), those that have developed the abilities and are using them appropriately can be considered at a more advanced level (Stage IIb). It may be important to break down Stage I and Stage III also, but we do not as yet have sufficient information to do so reliably.

Stage III: Mental Ages 11-15 - By the age of 11 the learner can solve problems through logical thought. Problems can be solved from purely verbal or hypothetical situation. He is aware of himself as a part of society, but only in a self-centered way. He bases his judgments on his concept of personal involvement. In choosing materials for this stage three learner, we look for those which present abstract concepts with high interest potential.

The high interest potential cannot be overlooked in the auditory learning experience. It seems as if Stage III learners consistently ask "What's in it for me?" If we understand that this is an appropriate question for this learner, we can better select materials and plan the auditory learning experience. Pre and post testing along with advance organizers are very appropriate for this level learner. They are quite capable of evaluating the learning experience for themselves.

B. CHRONOLOGICAL AGE

Because we are dealing with in-school populations we have a lower limit of a 3 year old child. This child would fall into Stage I. Stage II has a lower limit of a 5 year old who may have a mental age of 7. Stage III has a lower limit of a 9 year old who may have a mental age of 11. These lower age limits are provided to allow enough flexibility for all types of learners. We have not yet determined an upper chronological age limit.

C. PERFORMANCE GRADE LEVEL

We believe it will be helpful to know the reading level of the student as it is a descriptor commonly used by commercial producers, teachers, and field-test evaluators to describe a child. Most children can be found to be functioning at a reading level at least one level below their potential reading level. (NOTE: potential reading level is often equated with listening comprehension level)

D. SOCIAL AND EMOTIONAL DEVELOPMENT

In the above descriptions of various mental ages, we briefly discussed the social and emotional state of learners as it related to cognitive development. A Stage I learner is basically egocentric in thought and behavior. A Stage II learner interacts with others and is sociable in specific situations and with specific people. A Stage III learner, though capable of logical thought and aware of his membership in society, tends to base his involvement in experiences on ego-centered judgments. He is self-centered in terms of his reasoning and sees things "his" way.

We believe it is more important to include the social and emotional development of the learner in order to obtain a more complete "picture."

AUDITORY INSTRUCTIONAL MATERIAL
IDENTIFICATION INFORMATION

BEST COPY AVAILABLE

I. TITLE: *Beginner's Bird Box* (2)

(2) Series, title & number (3,4)

Author(s) *Julia K. Fenderson* (5) Publication/Copyright date *1973* (6)

SOURCES:
National *Educational Insights* company — *211 S. Hindry Ave. Inglewood, CA 90301* address (10)

Local *MSU-SEIMC* company — *213 Erickson Hall Michigan State University* address (11)

Catalog price and date *$12.95, 1973* (9) National Identification Symbol (1)

CEC ERIC Descriptors (12)

II. CLASSIFICATION:

	Primary	Secondary
Mode of Input	*auditory*	*visual*
Type of format (note quantity of each)	*1 cassette*	*10 illustrated information cards* (7)

Method of Output *none*

Curricular Area *science* Instructional Level *primary/interm.*

Minimum: C.A. *6*, M.A. *6*, Stage *II* Interest Level *primary/interm.*

Prerequisite Skills *auditory memory - all areas competent; reading - instructional*

III. MATERIALS USE:

Instructional *x* OR Supplemental ___ Teacher's manual *x* yes ___ no

Objectives *identification of 8 of 10 birds and their calls, birds eggs and silhouettes, characteristics of different birds, and ways birds help ecology*

Lessons (include total number) singular ___ multiple *8* sequential ___

Time per lesson *10 min.* Follow-up activities: required ___ suggested *x* none ___

Setting(s): individual *x* small group *x* large group ___

Instructions for Use *designed for use in segments (by specific birds) - could be used in small group or individual study carrel - teacher's manual is complete and useful guide* (14)

Teacher directed? ___ yes *x* no

Descriptive Comments *very adaptable - easy to listen to and follow directions - instructions are included to turn off cassette and repeat section - well illustrated picture and information cards - music and words to songs also included - well done* (13,15)

Necessary equipment & possible special features *cassette recorder* (8)

Classified by *Marsha C. Smith*

AUDITORY LEARNING MATERIALS CATALOG

QUESTIONNAIRE #1

INSTRUCTIONS:

Please examine the attached sheet from a catalog of auditory learning materials.

If this sheet were to be altered to a half page, printed front and back, which items on the sample sheet would you prefer to have on the front of the sheet?

List the items to be put on the front of the sheet below:

____

____

____

____

____

____

____

____

____

Thank you!

AUDITORY LEARNING MATERIALS CATALOG

QUESTIONNAIRE #2

INSTRUCTIONS:

Please examine the four (4) sheets from catalogs of auditory learning materials, then answer the following questions:

1a. Which form would be most useful to you (information wise) in making a decision about the auditory learning material? (Check one)

Form 1 ____   Form 3 ____
Form 2 ____   Form 4 ____

1b. Why? ____

____

____

2a. Which form do you find the most convenient (format wise) in making a decision about the auditory learning material? (Check one)

Form 1 ____   Form 3 ____
Form 2 ____   Form 4 ____

2b. Why? ____

____

____

Thank you!

BEGINNER'S BIRD BOX

Julia K. Fenderson
University of Southern California

c. 1973

USE DATA

Age level:	Primary grades Intermediate grades
Interest level:	Primary grades Intermediate grades
Minimum CA:	6
Minimum MA:	6
Setting:	Individual Group
Time needed:	10 minutes/lesson 10 lessons

MATERIALS

- 12 picture cards
- 1 cassette
- 1 teacher guide

COMMENT

- well illustrated
- music and words for songs are included
- adaptable
- easy to listen to and follow directions
- learner is instructed when to stop cassette and repeat a section
- objectives are clearly presented in teacher guide

SUMMARY DESCRIPTION

Area of focus:	science study of birds
Prerequisite skills:	auditory memory reading
Objectives:	• identification of 8 birds and their ca • identification of bi eggs and silhouett • identification of ch teristics of diffe birds • identification of wa birds help ecology

COST: $12.95

PRODUCER:

Educational Insights, c.
211 South Hindry Ave
Inglewood, Californi 301

2

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AUDITORY INSTRUCTIONAL MATERIAL
IDENTIFICATION INFORMATION

I. TITLE: Beginner's Bird Box (2)

______ (2) Series, title & number ______ (3,4)

Author(s) Julia K. Fenderson (5) Publication/Copyright date 1973 (6)

SOURCES:

National Educational Insights (company) 211 S. Hindry Ave., Inglewood, CA 90301 (address) (10)

Local MSU/SEIMC Materials Development Unit (company) 213 Erickson Hall Michigan State University (address) (11)

Catalog price and date $12.95 (9) National Identification Symbol ______ (1)

CEC ERIC Descriptors ______ (12)

II. CLASSIFICATION:

	Primary	Secondary
Mode of Input	auditory	visual
Type of format (note quantity of each)	1 cassette	10 illustrated information cards (7)

Method of Output none

Curricular Area Science Instructional Level primary/interm.

Minimum: C.A. 6, M.A. 6, Stage II Interest Level primary/interm.

Prerequisite Skills listening-auditory memory-reading helpful for individual use by older students

III. MATERIALS USE:

Instructional X OR Supplemental ____ Teacher's manual X yes ____ no

Objectives identification of 8 of 10 birds and their calls, birds eggs and silhouettes, characteristics of different birds, and ways birds help ecology

Lessons (include total number) singular ____ multiple X sequential ____

Time per lesson 10 min. Follow-up activities: required ____ suggested X none ____

Setting(s): individual X small group X large group ____

Instructions for Use Designed for use in segments (by specific birds). Could be used in small group or individual study carrel. Teacher's manual is complete and useful guide. (14)

Teacher directed? ____ yes X no

Descriptive Comments very adaptable, easy to listen to and follow directions- Instructions are included to turn off cassette and repeat section. (13,15)

Well done.

[illegible]

Illustrated picture and information cards - music and words to songs also included

Classified by Marsha C. Smith

OBJECTIVE Beginner's Bird Box is designed as a resource of motivational aids in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.

CONTENTS

- --Ten instructional objectives.
- --Ten cards with pictures and information about ten different birds.
- --Ten songs with piano accompaniment about each bird (on back of cards).
- --One cassette with information about the birds, their calls, and songs about the birds.
- --One 16-page Teacher's Guide.

EQUIPMENT INFORMATION Cassette recorder required.
Length: 100 minutes (10 minutes per lesson).

CONTENT AREA The cassettes and cards contain information on the sizes and shapes of ten common birds, their songs, pictures, and silhouettes. In addition, students learn vital characteristics of each bird, its nesting habits, its habitat, and how each bird is beneficial to the ecology.

PROCEDURE The cassette and cards are adaptable to a wide range of instructional methods. May be used by teacher in small group and individual settings, or may be used by the child alone. Primary input is audio cassette; visual input is secondary. Follow-up activities are suggested.

PREREQUISITE SKILLS Auditory Memory
Intermediate Reading Level

PRODUCER
Educational Insights, Inc.
211 S. Hindry Avenue
Inglewood, California 90301

DATE 1973

COST

COMMENTS Very adaptable; easy to listen to and follow directions. Instructions given to turn off cassette and repeat if necessary. Well done.

LOCAL SOURCE
Great Lakes Region SEIMC
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

FOCUS AREA	TITLE	RECOMMENDED FOR
Science	Beginner's Bird Box	Primary/Intermediate MA/CA:6

TITLE: Beginner's Bird Box by Julia K. Fenderson

PUBLISHER:
Educational Insights, Inc.
211 S. Hindry Ave.
Inglewood, CA 90301

PRICE: $12.95

DESCRIPTIVE COMMENTS: This series of 10 lessons of bird study (identification, their nests, habits, and calls) has been prepared to be utilized in a small group or with individuals. The teacher's guide presents objectives, methods for initiation, culmination activities, vocabulary, as well as a bibliography for both adults and children. All instructions for each lesson are presented on the tape. Included in the guide are guidelines to the evaluation of successful completion of the program. It may provide the basis for an instructional unit.

EQUIPMENT NEEDED: cassette recorder

TIME NEEDED:
10 minutes per lesson
10 lessons included

INTENDED AUDIENCE:
primary and intermediate
interested adults

AREA OF FOCUS: Science - bird study

CONTENTS:
1 cassette
10 [illegible] cards, with pictures

[illegible] guide

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward 515—353-7836

March 12, 1974

MEMORANDUM

TO: Consortium members

FROM: Joe Levine

SUBJECT: Catalog format questionnaire

Following our discussions at last week's Chicago meeting we have created (post haste) a number of re-configurations of Form #3. We have attempted to display the various groupings of information and picture in a variety of potentially appealing formats. Enclosed are collated sets of these forms with each set attached to a short questionnaire.

Ten copies are enclosed for your use in assessing the reactions of teachers. Would you please get ten (10) teachers to respond to this questionnaire within the next few days. Then, get the questionnaires back to us at Michigan State University for analysis. (You can tear off the questionnaire and return them without returning the sample pages.)

We would like to get the question of the catalog format resolved by the end of March! So, please get the completed questionnaires back quickly.

Thank you all for your contributions in making last weeks Consortium meeting an enjoyable and constructive session.

QUESTIONNAIRE #3

Attached to this questionnaire are __6__ different catalog pages that describe an instructional material. Please look over these pages and answer the following questions.

If a catalog of instructional materials were to be produced, which format do you feel should be used? (check only one)

Format #1 ____
Format #2 ____
Format #3 ____
Format #4 ____
Format #5 ____
Format #6 ____

Why do you like the format that you selected?

How useful would you find such a catalog?

____ extremely useful
____ useful
____ somewhat useful
____ not useful

Your occupation:

____ college student
____ special education teacher
(area of handicap ________________)
____ regular education teacher
____ consultant
____ administrator/supervisor

TITLE BEGINNER'S BIRD BOX	FOCUS AREA SCIENCE	RECOMMENDED FOR Primary/Intermediate MA/CA:6

OBJECTIVE

Beginner's Bird Box is designed as a resource of motivational aids in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.

CONTENT AREA

The cassettes and cards contain information on the sizes and shapes of ten common birds, their songs, pictures, and silhouettes. In addition, students learn vital characteristics of each bird, its nesting habits, its habitat, and how each bird is beneficial to the ecology.

PREREQUISITE SKILLS

Auditory Memory
Intermediate Reading Level

COMMENTS

Very adaptable; easy to listen to and follow directions. Instructions given to turn off cassette and repeat if necessary. Well done.

CONTENTS

Ten instructional objectives.
Ten cards with pictures and information about ten different birds.
Ten songs with piano accompaniment about each bird (on back of cards).
One cassette with information about the birds, their calls, and songs about the birds.
One 16-page Teacher's Guide

EQUIPMENT

Cassette recorder required.

- -

PRODUCER

Educational Insights, Inc.
211 S. Hindry Avenue
Inglewood, California 90301

DATE 1973

COST $12.95

TITLE
BEGINNER'S BIRD BOX

FOCUS AREA	Science
INTENDED AUDIENCE	Primary/Intermediate MA/CA: 6
PREREQUISITE SKILLS	Auditory Memory Intermediate reading level
CONTENTS	--10 instructional objectives. --10 cards with pictures and information about 10 different birds. --10 songs with piano accompaniment about each bird (on back of cards). --1 cassette with information about the birds, their calls, and songs about the birds. --1 teachers guide
EQUIPMENT	Cassette recorder required.
TIME	10 minutes/lesson, 10 lessons
PROCEDURE	The cassette and cards are adaptable to a wide range of instructional methods. May be used by teacher in small group and individual settings, or may be used by the child alone. Primary input in audio cassette; visual input is secondary. Follow-up activities are suggested.

OBJECTIVE

Beginner's Bird Box is designed as a resource of motivational aid in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.

PRODUCER	Educational Insights, Inc. 211 S. Hindry Avenue Inglewood, California 90301
DATE	1973
COST	$12.95
COMMENTS	Very adaptable; easy to listen to and follow directions. Instructions given to turn off cassette and repeat if necessary. Well done.

3

OBJECTIVE	Beginner's Bird Box is designed as a resource of motivational aids in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.
CONTENTS	--Ten instructional objectives. --Ten cards with pictures and information about ten different birds. --Ten songs with piano accompaniment about each bird (on back of cards). --One cassette with information about the birds, their calls, and songs about the birds. --One 16-page Teacher's Guide.
EQUIPMENT INFORMATION	Cassette recorder required. Length: 100 minutes (10 minutes per lesson).
CONTENT AREA	The cassettes and cards contain information on the sizes and shapes of ten common birds, their songs, pictures, and silhouettes. In addition, students learn vital characteristics of each bird, its nesting habits, its habitat, and how each bird is beneficial to the ecology.
PROCEDURE	The cassette and cards are adaptable to a wide range of instructional methods. May be used by teacher in small group and individual settings, or may be used by the child alone. Primary input is audio cassette; visual input is secondary. Follow-up activities are suggested.
PREREQUISITE SKILLS	Auditory Memory Intermediate Reading Level

PRODUCER	Educational Insights, Inc. 211 S. Hindry Avenue Inglewood, California 90301
DATE	1973
COST	$12.95
COMMENTS	Very adaptable; easy to listen to and follow directions. Instructions given to turn off cassette and repeat if necessary. Well done.
LOCAL SOURCE	Great Lakes Region SEIMC 213 Erickson Hall Michigan State University East Lansing, Michigan 48824

FOCUS AREA	TITLE	RECOMMENDED FOR
Science	Beginner's Bird Box	Primary/Intermediate MA/CA:6

TITLE
BEGINNER'S BIRD BOX

OBJECTIVE

Beginner's Bird Box is designed as a resource of motivational aids in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.

CONTENTS	--Ten instructional objectives. --Ten cards with pictures and information about ten different birds. --Ten songs with piano accompaniment about each bird (on back of cards). --One cassette with information about the birds, their calls, and songs about the birds. --One 16-page Teacher's Guide.
CONTENT AREA	The cassettes and cards contain information on the sizes and shapes of ten common birds, their songs, pictures, and silhouettes. In addition, students learn vital characteristics of each bird, its nesting habits, its habitat, and how each bird is beneficial to the ecology.
EQUIPMENT	Cassette recorder required

FOCUS AREA	Science
INTENDED AUDIENCE	Primary/Intermediate MA/CA: 6
PREREQUISITE SKILLS	Auditory Memory Intermediate reading level
PRODUCER	Educational Insights, Inc. 211 S. Hindry Avenue Inglewood, California 90301
DATE	1973
COST	$12.95
COMMENTS	Very adaptable; easy to listen to and follow directions. Instructions given to turn off cassette and repeat if necesary. Well done.

5

TITLE	AREA OF FOCUS	INTENDED AUDIENCE
BEGINNER'S BIRD BOX by Julia K. Fenderson	SCIENCE	PRIMARY/INTERMEDIATE MA/CA:6

OBJECTIVE

Beginner's Bird Box is designed as a resource of motivational aids in teaching music, art, language, reading, science and various aspects of conservation and ecology related to the general theme of birds in our natural environment.

CONTENTS

--Ten instructional objectives.
--Ten cards with pictures and information about ten different birds.
--Ten songs with piano accompaniment about each bird (on back of cards).
--One cassette with information about the birds, their calls, and songs about the birds.
--One 16-page Teacher's Guide.

EQUIPMENT

Cassette recorder required.

TIME

10 minutes per lesson, 10 lessons included

PROCEDURE

The cassette and cards are adaptable to a wide range of instructional methods. May be used by teacher in small group and individual settings, or may be used by the child alone. Primary input is audio cassette; visual input is secondary. Follow-up activities are suggested.

COMMENTS

Very adaptable; easy to listen to and follow directions. Instructions are given to turn off cassette and repeat if necessary. Well done.

PRODUCER

Educational Insights, Inc.
211 S. Hindry Avenue
Inglewood, California 90301

DATE 1973

LOCAL SOURCE

Great Lakes Region SEIMC
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

COST $12.95

TITLE	FOCUS AREA	RECOMMENDED FOR
Beginner's Bird Box by Julia K. Fenderson	Science	Primary/Intermediate MA/CA:6

USE DATA

Setting: Individual
Group

Time needed: 10 minutes/lesson
10 lessons

Equipment needed: Cassette recorded required

MATERIALS

12 picture cards
1 cassette
1 teacher guide

SUMMARY DESCRIPTION

Prerequisite skills: Auditory memory
Intermediate reading level

Objectives:

- --identification of 8 or 10 birds and their calls
- --identification of bird eggs and silhouettes
- --identification of characteristics of different birds
- --identification of ways birds help ecology

COMMENT

- --well illustrated
- --music and words for songs are included
- --adaptable
- --easy to listen to and follow directions
- --learner is instructed when to stop cassette and repeat a section
- --objectives are clearly presented in teacher guide

PRODUCER

Educational Insights, Inc.
211 South Hindry Avenue
Inglewood, California 90301

DATE

1973

COST

$12.95

LOCAL SOURCE

Great Lakes Region SEIMC
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

SECTION SIX

AUDITORY LEARNING MONOGRAPH SERIES

In a response to the Consortium's call for papers to increase the scholarly base of information on auditory learning, seven monographs were published and distributed to Network members. The monographs are as follows:

1. AN EXAMINATION OF LISTENING RATE, S. Joseph Levine
2. AUDITORY HIGHLIGHTING AS A STRATEGY FOR IMPROVING LISTENING COMPREHENSION, James W. Fleming
3. AUDITORY LEARNERS AND COMPREHENSION OF RATE-ALTERED RECORDINGS, David C. Broski
4. AUDITORY LEARNING: SOME OBSERVATIONS, Nancy A. Carlson
5. BRIDGING THE GAP BETWEEN MATERIALS AND LEARNERS: MAXIMIZING AUDITORY INSTRUCTION, Nancy A. Carlson, Cynthia A. Lafkas, S. Joseph Levine
6. EFFECT OF AN ORAL ADVANCE ORGANIZER ON THE LEARNING AND RETENTION OF EMR ADOLESCENTS, A. Edward Blackhurst
7. EMERGING AUDITORY DELIVERY SYSTEMS: IMPLICATIONS FOR INSTRUCTING HANDICAPPED CHILDREN, William A. Anderson

SECTION SEVEN

OTHER PRODUCTS

In addition to the catalog of auditory learning materials and the monograph series, there were three other products prepared for and distributed to Consortium members. These products were an attempt to increase the utilization of auditory learning materials by providing special educators with additional information about the location and selection of materials.

The products are:

The Catalog of Listening Skills Materials for Visually Impaired Students

Media References for Auditory Learning Materials

Auditory Learning Materials Available From Educational Radio Stations

Auditory Learning Materials for Special Education

Listening Skills Materials for Visually Impaired Students

Catalog

Bernadette Alber
State of Illinois Instructional Materials Center
Office of the Superintendent of Public Instruction
Springfield, Illinois

In conjunction with
The Consortium on Auditory Learning Materials for the Handicapped

July 1974

LISTENING SKILLS MATERIALS

FOR

VISUALLY IMPAIRED STUDENTS

Office of the Superintendent
of
Public Instruction
State of Illinois

in conjunction with
The Consortium on Auditory Learning Materials
for the Handicapped

Funded in part by the Bureau of Education for the Handicapped under Grant #OEG-3-6-062679-1564 (607) and #OEG-3-6-062377-1557 (607)

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ACKNOWLEDGEMENTS

The Instructional Materials Center, Office of the Superintendent of Public Instruction, State of Illinois, in conjunction with the Consortium on Auditory Learning Materials for the Handicapped, commissioned a committee of educators for the visually impaired to determine what products, if any, were available on the commercial market and could be used effectively with visually impaired children. Catalogs were perused and, through a series of working sessions, the committee members systematically evaluated actual materials which had been previously identified in the catalog as having possible merit.

During the final evaluation only those items which measured up to previously determined criteria were selected for inclusion in this manual. The concensus of the working groups was that the items listed could either be used as manufactured or with a minimal amount of modification, such as, transcribing the answer sheets into braille or large type. Many items were excluded from the listing because they relied too heavily on visual input or it was felt the necessary adaptations would be too complex.

The members of the committee were concerned about the extremely limited number of items which could be used effectively with the visually impaired. In certain functional areas almost nothing was available (i.e., grammatic closure).

It was the recommendation of the committee that work be continued to allow for the development of materials designed for use by the visually impaired, materials which require minimal visual input and rely primarily on auditory stimulus.

Members of the Committee are as Follows:

Fay Leach, American Printing House for the Blind, Louisville, Kentucky

Bernadette Alber, Teacher of the Visually Impaired and Learning Disabled, Evanston Township High School, Evanston, Illinois

Marilyn Bower, Teacher of the Visually Impaired and Learning Disabled, PAEC, Maywood, Illinois

Dorothy Ferry, Teacher of the Visually Impaired, Illinois Braille and Sight Saving School, Jacksonville, Illinois

Alphonsine Fleming, Teacher of the Visually Impaired, Illinois Visually Handicapped Institute, Chicago, Illinois

Franklin Green, Teacher of the Visually Impaired, Illinois Visually Handicapped Institute, Chicago, Illinois

Vicki Green, Teacher of the Visually Impaired, Dearborn Heights, Oak Lawn, Illinois

Liz Hain, Coordinator of Special Education, Tazewell-Mason Counties Special Education Association, Pekin, Illinois

Dr. Lawrence Hapeman, Instructor of Teacher Training, Northern Illinois University, DeKalb, Illinois

William Kaufmann, Auditory Specialist, Illinois Braille and Sight Saving School, Jacksonville, Illinois

Ruth Kearns, Teacher of the Visually Impaired, Centennial High School, Champaign, Illinois

Joan Lubera, Auditory Specialist, SLIDES, Park Ridge, Illinois

Guy Mahan, Director of Special Education, Franklin Park, Illinois

Dan Pietrini, Principal, West School, Franklin Park, Illinois

Janet Pritchert, Teacher of the Visually Impaired, Eastview Elementary School, Algonquin, Illinois

Paul Reinert, Supervisor of the Visually Impaired, East Central Region, Decatur, Illinois

Meg Staahl, Hadley School for the Blind, Winnetka, Illinois

Maryilan Suita, Auditory Specialist, S.M.A., Harvey, Illinois

Charles Taskerud, Vision Consultant, Title VI B-E.S.E.A., Moline, Illinois

Ronald Texley, Supervisor of Rehabilitation and Education, University of Illinois Rehabilitation and Education Center, Champaign, Illinois

Bonnie Trowbridge, Teacher of the Visually Impaired, Douglas School, Pekin, Illinois

Phil Vedovatti, Education Coordinator, West Suburban Association, Lombard, Illinois

Jane Wahl, Teacher of the Visually Impaired, Sunset Ridge School, Northfield, Illinois

Ellen Zabel, Supervisor of Library, Hild Library, Chicago, Illinois

Jerry Baginski, Education Specialist, Instructional Materials Center, Franklin Park, Illinois

Corinne Cloppas, Vision Consultant, Department of Public Health, Franklin Park, Illinois

Jackie Crain, Assistant Director, Instructional Materials Center, Springfield, Illinois

Bobbie Cheaney, Educational Specialist, Instructional Materials Center. Springfield, Illinois

Jan Tanner, Educational Specialist, Instructional Materials Center, Springfield, Illinois

Introduction

The auditory channel is one of the primary modalities of learning for visually impaired students. Therefore, it cannot be assumed that critical listening skills will develop automatically as the child grows. They need to be taught in an orderly, sequential fashion beginning with basic, auditory receptive skills and progressing to cognitive skills and abstract reasoning.

By the time the student is ready to enter high school, these skills should be well-developed, useful tools which can be utilized for gaining new information, insights and understandings. If it is determined that a student in elementary school has difficulty understanding what he hears, then training programs which provide opportunities to develop deficit areas in an organized, systematic manner should be established.

A functional approach to analyzing the student's skill is the most effective for it provides an opportunity to critically assess his abilities. This approach does not assume that skills are established because the child has reached a specific chronological age; rather it determines the auditory level at which the child is operating and provides a basis for planning an individualized program which will be effective for the student.

In their book, Auditory Training, Kathleen Eden, Jean Green, and Janice Hansen describe the functional abilities as follows:

I. AUDITORY RECEPTION

Auditory reception involves the ability to derive meaning from what is heard whether it concerns specific sounds, conversation, or other verbally presented material. Examples of auditory reception would include such things as:

...A baby hearing his mother's voice and turning in the direction of that sound.

...Hearing a siren when you are driving and responding by pulling over to the side of the road.

...On the verbal level, auditory reception involves the ability to understand and respond to such questions as Do clocks yawn? The child's answer, either yes or no, would indicate whether he could derive meaning from the verbally presented material.

A child with an auditory reception problem may have some of the following characteristics:

...The child may be unable to grasp more than simple short directions although he seems to be normally intelligent in other areas.

...This type of child does not care for word games or games which require response to verbal directions.

- ...Their relationships with peers are difficult as they do not understand what the other children are talking about and they may feel left out or get their feelings hurt.
- ...The child understands stories and instructions better if pictures, diagrams, or demonstrations are used. He requires more visual aids tc supplement verbal directions.

II. AUDITORY DISCRIMINATION

Auditory discrimination is the ability to hear likenesses and differences between sounds. It would include such things as:

- ...Identifying the differences between a car horn honking and a glass being filled with water. (This would be considered a gross auditory discrimination activity.)
- ...Identifying the differences between the sound of "f" and the sound of "t". (This similarly would be considered to be a fine auditory discrimination activity.)
- ...Being able to identify loud and soft sounds, differences in pitch, and high and low keys being played on a piano.

A child who has difficulty in this area may:

- ...Have difficulty learning the sounds associated with letters of the alphabet.
- ...Confuse words which sound similar, i.e., gourd for Lord, or singer for stinger.
- ...Will often guess at unfamiliar words due to poor phonetic abilities.
- ...Have poor word attack skills.

III. AUDITORY MEMORY

Auditory memory is the ability to remember things that have been heard. It can be divided into two subcategories.

1. Long term memory, i.e., being able to recall a story that was read a week or a month ago.

2. Short term memory, i.e., being able to repeat instructions that were just given to the class.

Characteristics of children with auditory memory problems would include:

- ...The child may have difficulty repeating words or a sentence.
- ...It may be difficult to follow simple classroom instructions, so they watch the other children for clues as to what they're supposed to be doing, or they watch the teacher's gestures quite closely for additional

visual clues.
...The child may have difficulty remembering the names of the letters of the alphabet and their sounds.

IV. AUDITORY SEQUENTIAL MEMORY

Auditory sequential memory is the process involving memory, in a given order of something the child has heard. Examples of this skill would involve:

...Being able to repeat a list of words or numbers in the same sequence it was given.
...Retelling a story and being able to put the details in the proper order.

A child with difficulties in this area may show some of the following characteristics:

...Inability to learn the days of the week or months of the year in proper sequence.
...Mispronounce words, i.e., emeny for enemy, and aminal for animal.
...Inability to follow a sequence of commands, such as, "Take out your math book".
...Unable to express himself in language situations in a logical manner.

V. GRAMMATIC CLOSURE

Grammatic closure refers to the ability to detect what particular word or phrase is being sought when only part of the word or part of the phrase is spoken. Examples of grammatic closure would include such things as:

...Supplying the missing word to an incomplete phrase such as, sugar and ......(spice).
...Completing a word when only the first part of the word is given such as, teleph ....(telephone).
...Using sound blending techniques to phonetically sound out words such as, c-a-t for cat.

A child who has difficulty in this area may:

...Have trouble learning plurals and past tenses and irregular forms of verbs.
...Mispronounce words he has heard many times such as pasgetti for spaghetti.
...Put the parts of the sentences together incorrectly such as, Jumped on me the dog, instead of, The dog jumped on me.
...Mix up parts of words thereby creating spoonerisms such as, Jose can you see by the dawn's early light, instead of, Oh say, can you see by the dawn's early light.

VI. AUDITORY ASSOCIATION

Auditory association refers to the ability to relate to spoken words in a meaningful way. An example of auditory association would include:

- ...Associating and supplying the missing word in this incomplete statement: sugar is sweet: lemon is ....
- ...Answering questions like: What sound do you make when you cough?
- ...Classifying objects into groups such as, peaches, pears, and apples are all fruit.

Children with auditory association difficulties may:

- ...Have difficulty relating concepts to each other such as, How are a car and a truck alike?
- ...Have difficulty learning to classify and categorize concepts such as, Is a peach a fruit or a vegetable?

VII. AUDITORY COMPREHENSION

Listening comprehension refers to the ability to bring together and integrate all previous learned listening skills to a level where the student is able to bring meaning to a lengthy passage through the utilization of cognitive skills.

- ...Is the student able to answer questions involving how and why questions?
- ...Is the student able to see relationships and draw conclusions?
- ...Is the student able to see abstract relationships?
- ...Is the student able to theorize on attitudes and relationships?

Is the student unable to:

- ...Understand relationships between characters or ideas?
- ...Understand the why or the how which motivates actions and/or thoughts?
- ...Understand the motivations behind the actions of the characters?

When a deficit in any of these areas is identified, instruction should begin. Each skill is built upon the one preceeding it, so each one should be well-developed before the next is approached.

The final skill, auditory comprehension, is the ability to utilize all the previous learnings. When the student is able to bring together all these skills easily and effectively, he will have a tool which will be useful to him as he enters high school.

---

[1] *Auditory Training*, Kathleen Eden, Jean Green, Janice Hansen, Iowa State Department of Public Instruction and University of Iowa, 1972, pp. 3-6.

The Functional Areas
# of Auditory Training

A Bibliography of Materials
for Use with the Visually Impaired

AUDITORY RECEPTION

TITLE: Auditory Perception Training - Motor

GRADE: 6 to 8
MEDIA: Tape

PRE-REQUISITE SKILLS: Auditory Acuity

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 10 minutes
SETTING: Individual or Small Group

The child listens to directions presented on the tape. He indicates his understanding by marking his response sheet as directed. There are multiple activities, presented in sequential manner, which do not have to be supervised by the teacher. No follow-up activities are included in the teacher's manual. The consumable dittoes need to be transcribed into the appropriate media for the visually impaired.

SOURCE: Developmental
Learning Materials
3505 North Ashland Ave.
Chicago, Illinois 60657

COST AS OF JUNE, 1974:
$74.00

AUDITORY RECEPTION

TITLE: Sound and Fancy

GRADE: Kgn. to 3
MEDIA: Records,
Tapes, Cassettes

PRE-REQUISITE SKILLS: General Readiness

TEACHER'S MANUAL: Yes
SETTING: Individual or Small Group

This aid utilizes listening games in the development of beginning readiness skills. The activities present a number of auditory experiences which the child is to identify and associate with previous learning. The materials used are common, everyday sounds which are familiar to all children. The teacher directs the instructional activities as well as the follow-up activities which are suggested in the pamphlet. The item does need modification for use with visually impaired children.

SOURCE: Wilson Educational
Recordings
Cassettes Unlimited
Roanoke, Texas 76262

COST AS OF JUNE, 1974:
Records $11.90
Tapes $15.80
Cassettes $15.80

AUDITORY DISCRIMINATION

TITLE: Happy Time Listening

GRADE: Kgn. to 3
MEDIA: Record

PRE-REQUISITE SKILLS: Auditory Reception

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 12 minutes
SETTING: Individual or Group

The child is given a verbal input and is expected to respond through active participation. Areas such as body image, balance, coordination and number concepts are utilized. It is suggested that the teacher play the record through once so the children will be familiar with the material. She should also be able to help the students through demonstration or body manipulation. The device consists of five lessons and can be used as manufactured.

SOURCE: Educational
Activities
Box 392
Freeport, New
York, 11520

COST AS OF JUNE, 1974:
$6.25

AUDITORY DISCRIMINATION

TITLE: Sound Skills, Albums 1 & 2

GRADE: 3 to 5
MEDIA: Records

PRE-REQUISITE SKILLS: Auditory Reception

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 6 minutes
SETTING: Individual or Group

These materials are designed for the older child with specific word attack disabilities. The student listens to sounds and then repeats them. The activity is teacher directed for she must monitor the responses of the child. The main emphasis is on the development of phonics with particular emphasis placed on the recognition of beginning word sounds.

SOURCE: Classroom
Materials
93 Myrtle
Drive
Great Neck,
New York

COST AS OF JUNE, 1974:
$4.98 each

AUDITORY DISCRIMINATION

TITLE: Auditory - Perception Program
2810 - Auditory Figure-Ground Set
GRADE: 6 to 8
MEDIA: Tape

PRE-REQUISITE SKILLS: Auditory Acuity

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 10 minutes
SETTING: Individual or Small Group

The child listens to the tapes to distinguish foreground sounds. He marks his response on the answer sheet. The background sounds increase as the tasks become more difficult. The material is presented in a sequential pattern and is useful in teaching the purported auditory skills. The activity does not have to be supervised by the teacher. The device is well-constructed and durable. The response sheets, which have to be adapted into braille or large print, are consumable.

SOURCE: Educational
Corp. of America
984 Livernois Road
Troy, Michigan

COST AS OF JUNE, 1974:
$42.50

AUDITORY DISCRIMINATION

TITLE: Auditory - Perception Program
2820 - Auditory Discrimination Set
GRADE: 6 to 8
MEDIA: Tape

PRE-REQUISITE SKILLS: Auditory Acuity

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 10 minutes
SETTING: Individual or Small Group

A sound is presented and the student is expected to mark the picture which begins with the sound. The demands begin with gross differences and progress to finer discrimination. There are multiple, sequential lessons which may be completed by the students independently of the teacher's supervision. The tapes are well-prepared and the acuity is good. The dittoes need to be darkened for the partially seeing. More extensive modification is required for the braille reader.

SOURCE: Educational Corp.
of America
984 Livernois Road
Troy, Michigan
48084

COST AS OF JUNE, 1974:
$42.50

AUDITORY DISCRIMINATION

TITLE: Exploring Sound and Grouping

GRADE: Kgn. to 3
MEDIA: Cassette or Record

PRE-REQUISITE SKILLS: Auditory Reception

TEACHER'S MANUAL: No
SETTING: Individual or Group

The item is designed to teach the primary age child concepts of grouping. The objectives are achieved through requiring the child to listen, identify and group sounds which he hears. The teacher directed activities utilize concrete language and mathematical concepts. They are effective in teaching the purported skills and can be used with the visually impaired as developed.

SOURCE: Singer Educational
and Training Products
1345 Diversey Parkway
Chicago, Illinois
60614

COST AS OF JUNE, 1974:
Cassettes $15.80
Records $11.90

AUDITORY DISCRIMINATION

TITLE: I Heard It with My Own Two Ears

GRADE: Kgn. to 3
MEDIA: Cassettes or Tapes

PRE-REQUISITE SKILLS: General Auditory Reception

TEACHER'S MANUAL: Yes
SETTING: Individual or Small Group

These enrichment materials are designed to develop auditory discrimination and creative oral and written expression. The teacher directed activities require the child to identify sounds from his environment and are strictly geared to the development of keener listening skills. There are suggested follow-up activities which are given in the teacher's manual. No adaptations for visually impaired students are required as there are no workbooks or ditto sheets included.

SOURCE: Spoken Arts
310 North Avenue
New Rochelle,
New York 10801

COST AS OF JUNE, 1974:
$125.00 for 12
lessons or
$11.50 each

AUDITORY MEMORY

TITLE: Countdown for Listening

GRADE: Kgn. to 3
MEDIA: Records

PRE-REQUISITE SKILLS: Auditory Reception

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 7 1/2 minutes
SETTING: Individual or Group

The sequentially presented material on the 6 records is designed to encourage communication skills. The child is directed by the teacher to listen to the story and then answer questions. There are twenty-four separate lessons as well as follow-up activities suggested in the teacher's manual. The stories are interesting and deal with several curricular areas such as reading and science. The material follows a sequential pattern and can be used as manufactured.

SOURCE: Educational Activities, Inc.
Box 392
Freeport, New York 11520

COST AS OF JUNE, 1974:
$29.95

AUDITORY SEQUENTIAL MEMORY

TITLE: World of Sound

GRADE: Kgn. to 3
MEDIA: 2 Records, or 4 Tapes, or 2 Cassettes

PRE-REQUISITE SKILLS: Auditory Memory

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 20 minutes
SETTING: Individual or Small Group

The objectives of this aid are to improve listening and attention span and broaden the student's ability to organize communication. The teacher directed activities follow a sequentially developed pattern. The examples used are good, the activities interesting, and the experiential background of the child is often called upon. The materials can be used as manufactured.

SOURCE: H. Wilson Educational Recordings
Cassettes Unlimited
Roanoke, Texas 76262

COST AS OF JUNE, 1974:
Records $11.90
Tapes $15.80
Cassettes $15.80

TITLE: And the Beat Goes on for Physical Education

GRADE: 6 to 8
MEDIA: Records

PRE-REQUISITE SKILLS: Ability to Follow Directions

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 2 to 3 minutes
SETTING: Individual or Group

These two records, designed for physical educaton classes, are useful in training sequential memory. The student indicates his skill by performing the series of movements following auditory instruction. The 24 lessons are teacher directed. The activities can be performed in a classroom, gym or playroom. No additional materials are required as the student indicates his response through movement rather than marking a sheet. This activity requires active participation and the musical accompaniment is stimulating.

SOURCE: Educational
Activities
Box 392
Freeport, New York
11520

COST AS OF JUNE, 1974:
$12.00

TITLE: The Living History Book

GRADE: 4 to 9
MEDIA: Cassette
or Tape

PRE-REQUISITE SKILLS: Developed Vocabulary
and Reading Skills

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 20 minutes
SETTING: Individual or Group

Highlights of american history are presented in a news broadcast format. The student must recall in sequential order what he has heard and then complete the exercise booklets. The teacher is required to introduce the material and then direct the follow-up activities suggested in the manual. The material should be screened before presentation for it is presented at a high vocabulary level. The only required adaptation is transcribing the 35 exercise booklets in the appropriate reading media for the visually impaired students.

SOURCE: Imperial International
Learning Corporation
Box 548
Kankakee, Illinois
60901

COST AS OF JUNE, 1974:
$159.00

AUDITORY SEQUENTIAL MEMORY

TITLE: Perceptual Communication Skills Program: Developing Auditory Awareness and Insight
GRADE: 4 to 6
MEDIA: Tapes

PRE-REQUISITE SKILLS: Auditory Discrimination

TEACHER'S MANUAL: No
SETTING: Individual or Group

The student is directed to listen to the tape and then perform the activity. Responses are marked in his workbook. The language oriented lessons are presented in a sequential manner and can be completed independently of the teacher's supervision. The material is very good for the development of auditory awareness and can be easily used with visually impaired students. The workbook has to be transcribed into the appropriate media.

SOURCE: Instructional
Materials and
Equipment
Distributors
Los Angeles,
California 90025
COST AS OF JUNE, 1974: $130.00

GRAMMATIC CLOSURE

TITLE: Listening Your Way to Better English
GRADE: 6 to 8
MEDIA: Cassettes

PRE-REQUISITE SKILLS: Adequate Auditory Acuity

TEACHER'S MANUAL: No
LENGTH OF LESSONS: 10 to 20 minutes
SETTING: Individual or Small Group

This device is designed to develop more effective utilization of language skills. The student listens to the tape and then completes the self-contained lessons. Each lesson is a single activity and follows the previous one in a sequential manner. There are suggested follow-up activities which can be done. The exercises emphasize basic English grammar and its correct usage in the development of language skills. The material can be used as manufactured.

SOURCE: Associated
Educational
Materials
Box 2087
Raleigh, North
Carolina 27602
COST AS OF JUNE, 1974:
$100.90

AUDITORY ASSOCIATION

TITLE: Sentence Sense

GRADE: 6 to 8
MEDIA: Cassettes

PRE-REQUISITE SKILLS: Auditory Discrimination and Memory

TEACHER'S MANUAL: No
LENGTH OF LESSONS: 20 minutes
SETTING: Individual or Group

The objective of this item is to develop basic sentence concepts. The student listens to the tape and then discusses what he has heard. To heighten effectiveness, the teacher can highlight information the student should listen for and then direct follow-up discussion along these lines. The discussion questions will need to be developed by the teacher. The material is presented in a sequential manner but requires a great deal of work on the part of the teacher to be effective. The sections on study skills, library skills and great sea stories are not recommended for the development of auditory association skills.

SOURCE: Educational Corp.
of America
984 Livernois Road
Troy, Michigan
48084

COST AS OF JUNE, 1974:
$35.90

AUDITORY ASSOCIATION

TITLE: Building Verbal Power in the Upper Grades

GRADE: 4 to 8
MEDIA: Records

PRE-REQUISITE SKILLS: Basic Language Concepts

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 5 minutes
SETTING: Individual or Group

The student listens to one of the records and responds to the questions. He may give his answer verbally or write it on a sheet of paper. The material deals with synonyms, antonyms and analogies and is directed toward the development of language facility, logical and categorical thinking, and verbal reasoning. There are 25 separate lessons which the teacher supervises, and she monitors the student's responses. The item can be used as manufactured as all of the input is auditorily presented and the responses are verbal.

SOURCE: Classroom Material Co.
93 Myrtle Drive
Great Neck, New York
11021

COST AS OF JUNE, 1974:
$15.75 per set

AUDITORY ASSOCIATION

TITLE: We Listen and Learn

GRADE: 1 to 4
MEDIA: Cassettes,
Tapes, Records

PRE-REQUISITE SKILLS: Readiness in Motor Activities

TEACHER'S MANUAL: Yes
SETTING: Individual or Small Group

The small child is encouraged to respond motorically to the songs, games and activities presented. The lessons are teacher supervised to insure that the student understands the movements he is to make. The skills are well-presented and the cassettes can be used as manufactured as there is no reading requirement.

SOURCE: Wilson Educational
Recordings
Cassettes Unlimited
Roanoke, Texas
76262

COST AS OF JUNE, 1974:
Records $17.50
Tapes $23.50
Cassettes $23.50

AUDITORY ASSOCIATION

TITLE: Stories in Sound

GRADE: Kgn. to 1
MEDIA: Record

PRE-REQUISITE SKILLS: None

TEACHER'S MANUAL: No
SETTING: Individual or Group

Basic environmental sounds are presented through auditory input. The child plays the record and listens to stories that are told with sounds. The aid can be used as manufactured and is useful in the development of basic auditory association skills.

SOURCE: Children's Music
Center
5373 West Pico Blvd.
Los Angeles, California
90019

COST AS OF JUNE, 1974: $1.98

AUDITORY COMPREHENSION

TITLE: Listening Improvement Series - Listening Progress Laboratory

GRADE: 4 to 9
MEDIA: Cassette

PRE-REQUISITE SKILLS: Language Development and the Ability to Match Tones

TEACHER'S MANUAL: Yes
SETTING: Individual or Group

This series of 20 cassettes is designed to teach basic and cognitive listening skills. Different cassettes in the series emphasize different skills (i.e. 4 and 5 deal with discrimination, 5 and 6 with memory). The sequentially presented material can be completed by the student independently of supervision by the teacher. The answer sheets need to be prepared in the appropriate media for the visually impaired student.

SOURCE: Educational Progress Corporation
8535 East 41 Street
Tulsa, Oklahoma 74145

COST AS OF JUNE, 1974: $140.00

AUDITORY COMPREHENSION

TITLE: Developing - L.T.R. (Listen, Think, React)

GRADE: 7 to 8
MEDIA: Cassettes

PRE-REQUISITE SKILLS: Auditory Memory and Association

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 20 minutes
SETTING: Individual or Small Group

These language oriented tapes, presented at an advanced level, stimulate an interest in words and increase vocabulary. Each tape presents a single, teacher directed lesson. The item is designed to develop the listening skills of the junior high school student and can be used as manufactured.

SOURCE: Wilson Educational Recordings
Cassettes Unlimited
Roanoke, Texas
76262

COST AS OF JUNE, 1974:
Approx. $11.90 records
$15.80 Tapes

AUDITORY COMPREHENSION

TITLE: Voices of Our Times

GRADE: 6 to 8 & above
MEDIA: Cassettes or Records

PRE-REQUISITE SKILLS: Auditory Association and General Maturity

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 30 minutes listening time
SETTING: Individual or Group

The major objective of this item is to increase social awareness through listening to others express ideas. The lessons are more meaningful when accompanied by the follow-up activities and are motivational for student action. This item consists of four lessons. It is presented at a high level, assuming some developed auditory comprehension skills on the part of the student and is useful in the development of higher cognitive skills. The material can be used as manufactured.

SOURCE: Singer Educational
and Training Products
1345 Diversey Parkway
Chicago, Illinois
60614

COST AS OF JUNE, 1974:
Cassettes $15.50
Records $11.50

AUDITORY COMPREHENSION

TITLE: Listen and Read

GRADE: 7 to 12
MEDIA: Cassettes

PRE-REQUISITE SKILLS: General Reading and Vocabulary

TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 60 minutes
SETTING: Individual or Group

The fifteen individual lessons of this aid are designed to develop listening and reading skills. The student listens to the tapes and then marks his responses in the workbook provided. The teacher directs the activity and checks the workbooks. The material follows a sequential pattern and is effective in the development of the purported skills. The workbooks need to be adapted in a media appropriate for the visually impaired.

SOURCE: Educational
Development
Laboratories
27 North Gore
Webster Grove,
Missouri

COST AS OF JUNE, 1974:
15 Cassettes $107.50
Lesson Books $1.35
Teachers Guide $1.00

TITLE: Listen and Think Adapted Program

GRADE: 1 to 9
MEDIA: Tape

PRE-REQUISITE SKILLS: This depends upon the level of materials chosen
TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 20 to 25 minutes
SETTING: Individual or Group

These materials, adapted for visually impaired students by the American Printing House for the Blind, are designed to teach basic listening and thinking skills. There are 15 lessons at each of the nine levels. The activities can be undertaken independently by the students and their answers are recorded on the sheets which accompany the tapes. The material follows a sequential pattern and deals with the areas of reading readiness and language development.

SOURCE: American Printing
House for the Blind
1839 Frankfort Avenue
Louisville, Kentucky
40206

COST AS OF JUNE, 1974:

TITLE: Computapes, (Module 6), Decimals and Percents

GRADE: 6 to 8
MEDIA: Cassette

PRE-REQUISITE SKILLS: Auditory Sequential Memory
Basic Mathematics Concepts
TEACHER'S MANUAL: Yes
LENGTH OF LESSONS: 10 to 20 minutes long
SETTING: Individual or Group

Computapes are useful in reinforcing basic arithmetic skills and teaching mathematical concepts. The teacher directed activities are individual lessons designed in sequential order. The student listens to the tapes and marks his responses in the workbook or on ditto sheets. There are some visual demands so this device is recommended for the partially seeing rather than the blind.

SOURCE: Science Research
Association
259 East Erie St.
Chicago, Illinois
60611

COST AS OF JUNE, 1974:
$60.00

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

ordinator: Ted Ward 515—353-7836

MEDIA REFERENCES FOR AUDITORY LEARNING MATERIALS

Compiled by

WILLIAM ANDERSON

The following list of references and source directories is designed to assist teachers, administrators and specialists in locating large numbers of existing auditory learning materials. The listing has been divided into two groups: Group I, a list of basic references and directories; and Group II, a more specialized and supplemental listing of references and directories.

It should be noted that the prices given may have been changed by the publisher/distributor without notice.

A Coordinated Affiliation of Special Education Network Units
Bureau of Education for the Handicapped—U.S. Office of Education—An equal Opportunity Employer

GROUP I

BLUE BOOK OF AUDIOVISUAL MATERIALS, 48th edition, Educational Screen and Audiovisual Guide, 434 South Wabash Avenue, Chicago, Illinois, 60605. 1973. 60 pages. $2.50. Annual, in July/August issue of Educational Screen and Audiovisual Guide.

> Listing of approximately 1200 titles in all media in 33 subject fields produced in the twelve months preceding publication. Includes reader service cards which include numbers for all producers and distributors to enable readers to channel requests for information concerning items through Educational Screen and Audiovisual Guide.

EDUCATORS GUIDE TO FREE TAPES, SCRIPTS AND TRANSCRIPTIONS, compiled and edited by Walter A. Wittich. 16th edition. Educators Progress Service, Randolph, Wisconsin 53956. 1973. 200 pages. $7.75. Revised annually.

> Over 300 tapes, 15 scripts and 65 transcriptions in all instructional subjects including conservation, guidance, health education, homemaking, language arts, music, science, and social studies. Available on free loan to school superintendents, AV directors, librarians and teachers.

HARRISON TAPE CATALOG: OPEN REEL, CASSETTES AND 8-TRACK, M. & N. Harrison, Inc., 274 Madison Avenue, New York, N.Y. 10016. Cumulative catalog published bimonthly, $1 per single copy, $5 per yearly subscription. (Generally available at record and music shops.)

> Approximately 1400 old and new tapes under such headings as: children's, language lessons, international, vocal opera, folk, jazz and others. Each category includes a "what's new" list as well as cumulative list.

LEARNING DIRECTORY--INSTRUCTIONAL MATERIALS INDEX. Westinghouse Learning Corporation, 100 Park Avenue, New York, N.Y. 10017. 1970, with 1972 supplement. $99.50, $25.00 supplement.

> This seven volume directory identifies over 205,000 audiovisual and instructional materials for all grade levels in all subject areas. Over 1000 different producers represented in directory. One of two most comprehensive audiovisual materials listings in existence. Reads like white pages of Los Angeles telephone directory.

LIBRARY OF CONGRESS CATALOG: MUSIC AND PHONORECORDS. 1953 to date. Semiannual with annual cumulations at $20. Music and Phonorecords, 1953-57 cumulation, issued as v.27 of the National Union Catalog. $20. 1049p. Music and Phonorecords, 1958-62 cumulation, issued as v.51 and v.52 of the National Union Catalog. v.51, $20. 1049p; v.52, $20. 514p. Music and Phonorecords, 1963-67 cumulation, issued in 3v., $75. Quinquennial volumes for 1953-57 and 1958-62 are for sale by Rowman and Littlefield, Inc., 84 Fifth Avenue, New York, N.Y. 10011. Quinquennial volumes for 1963-67 are for sale by J. W. Edwards, Inc., Ann Arbor, Michigan 48106. Current issues and annual cumulation available from the Library of Congress, Card Division, Building No. 159, Navy Yard Annex, Washington, D.C. 20541. The next quinquennial cumulation will cover the years 1968-72; therefore, there will be no annual cumulation for 1972.

Music scores intended for performance and sound phonorecords, musical and nonmusical. The nonmusical recordings cover all subject fields currently received by the Library of Congress and other American libraries participating in its cooperative cataloging program. Books about music and librettos have been included since 1963.

NATIONAL CENTER FOR AUDIO TAPES CATALOG, National Center for Audio Tapes, University of Colorado, Stadium Building, Boulder, Colorado 80302. 1972. 123 pages. $4.50.

Approximately 12,000 tapes selected on basis of curricular relevance and production quality which can be re-recorded for any individual, group, educational institution, or business firm provided that the restrictions are adherred to. Tape listings for all subject matters and grade levels.

NICEM, National Information Center for Educational Media, University of Southern California, University Park, Los Angeles, California 90007.

A. Index to Educational Audio Tapes, 1972, $36.50 (yearly update).

Lists and describes over 20,000 audio tapes for educational use. Identifies producer, distributor, grade level, content area, and availability. Selective search via computer with descriptors possible.

B. Index to Educational Records, 1972, $34.50 (yearly update)

Lists and describes over 18,000 educational records. Same information available as in other NICEM indexes.

SCHWANN RECORD AND TAPE GUIDE. Monthly Schwann Supplementary Record Guide; semiannual. W. Schwann, Inc., 137 Newbury Street, Boston, Massachusetts 02116 (Also available in some 3,800 record-tape shops in the United States.)

Guide includes over 35,000 titles from 770 companies in all subject areas. 1949-1969 listings availabe on 35 mm positive microfilm from: AMS Press, Inc., 56 East 13th Street., New York, N.Y. 10003. Schwann Children's Record Guide (1970), published annually for $.35 postpaid from publisher.

GROUP II

AN ANNOTATED LIST OF RECORDINGS IN THE LANGUAGE ARTS, compiled and edited by Morris Schreiber. National Council of Teachers of English, 508 South Sixth Street, Champaign, Illinois 61820. 1971. Stock Number 47906. 83 pages. $1.75.

An annotated selected list of records to aid English teachers in elementary schools, secondary schools in subject areas of American literature, folk literature, American history, world history, social studies, English and American poetry and prose, drama, Shakespeare, documentaries, lectures, speeches, and anthologies, 436 entries.

AUDIOVISUAL MARKETPLACE--A MULTIMEDIA GUIDE, J. A. Neal, Editory. R.R. Bowker Company, 1180 Avenue of the Americas, New York, N.Y. 10036. 1972. 293 pages. $15.00.

A guide to producers and distributors of audiovisual materials, free loan and audio tape exchange centers, educational radio and television stations, audiovisual associations, audiovisual reference materials, audiovisual periodicals and review services, and audiovisual services such as: cataloging, dealers, laboratories, and equipment rental.

THE BLACK RECORD: A SELECTIVE DISCOGRAPHY OF AFRO-AMERICA ON AUDIO DISCS, Washington University Libraries, Audio-Visual Department, St. Louis, Missouri 63130. 1970. 13 pages. $50 prepaid, $1.50 if billing required.

More than 100 phonodiscs dealing with black history. Documentary and spoken word recording classifications include biographical material, speeches, poetry, prose and drama. Emphasis is placed on "authentic" folk recordings and they range from origins in Africa to "Songs of the Selma-Montgomery March."

EDUCATORS GUIDES TO FREE MATERIALS, Educators Progress Service, Randolph, Wisconsin 53956.

1. Free Guidance Materials - $8.75
2. Free Social Studies Materials - $9.50
3. Free Health, Physical Education and Recreation Materials - $8.00
4. Free Science Materials - $9.25

Generally available listings of free-loan educational and informational multi-media materials. Each directory contains at least 50 tapes. Classified by medium and subject, then alphabetical by title.

EDUCATIONAL MEDIA INDEX: A PROJECT OF THE EDUCATIONAL MEDIA COUNCIL. McGraw-Hill Book Company, New York, N.Y. 10036. 1964. 14 volumes. $62.45. Individual volumes available separately at various prices. (Limited supply available from Educational Media Council, Inc., DuPont Circle Building, Suite 710, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

> Over 28,000 titles of media (all types) in all subject matters from kindergarten to adult education. Entries include subject heading, type of medium, producer-distributor, length, grade level, and availability.

EDUCATOR'S PURCHASING GUIDE (formerly Fisher Publishing Company's EPM), 5th Edition, North American Publishing Company, 134 North Thirteenth Street, Philadelphia, PA 19107. 1973. $21.50.

> A reference guide to producers of instructional and audiovisual materials and equipment for all grade levels and disciplines of education. Included are product listings, product information sections, producer/manufacturer sections, and a trade name section.

GENERAL CATALOG OF TALKING BOOKS, American Printing House for the Blind, Inc., 1839 Frankfort Avenue, P.O. Box 6085, Louisville, KY 40206. 1973.

> Talking books (recorded at 16 2/3 rpm or 8 1/3 rpm) have been listed according to school subjects. All are available for purchase from APH. Note talking books require special playback equipment (also available from APH.) A listing of audio tape cassettes is also available free from the American Printing House under a separate cover.

FOLK MUSIC: A CATALOG OF FOLK SONGS, BALLADS, DANCES, INSTRUMENTAL PIECES, AND FOLK TALES OF THE UNITED STATES AND LATIN AMERICA ON PHONOGRAPH RECORDS, U.S. Library of Congress, Reference Department, Music Division, Recording Library, Washington, D.C. Available from U.S. Government Printing Office, Washington, D.C., 20402. 107 pages. $.40.

> Records representing a sampling of the best of more than 16,000 records in the Archive of Folk Song of the Library of Congress. Included in catalog are 107 discs (78 rpm) containing 341 titles and 59 discs (33 1/3 rpm) with 899 titles of folk music and tales recorded in the field with portable recording equipment, for sale by the Library of Congress.

GUIDES TO EDUCATIONAL MEDIA, 3rd edition, Margaret I. Rufsvold and Carolyn Guss, American Library Association, 50 East Huron Street, Chicago, Illinois 60611. 116 pages. $2.50.

> A guide to catalogs and references, services of professional organizations, and specialized periodicals which systematically provide information on nonprint educational media. Identifies and describes 153 educational media references and is more comprehensive than selective.

NEW EDUCATIONAL MATERIALS, compiled by Mary L. Allison, Citation Press, 50 Forty-fourth Street, New York, N.Y. 10036. 1970. 256 pages. $3.75.

> Annotated listing of films, phonodiscs, phonotapes, multimedia kits, charts, etc., for the classroom teacher from prekindergarten through the twelfth grade. Many materials have evaluative comments.

SPOKEN RECORDS, by Helen Roach. Scarecrow Press, Box 656, Metuchen, New Jersey 08840. 1970. 288 pages. $7.50.

> More than 500 spoken recordings including documentaries, lectures, interviews and readings by authors. Arranged by subject categories, then alphabetical by title.

CONSORTIUM ON AUDITORY LEARNING MATERIALS FOR THE HANDICAPPED

213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Coordinator: Ted Ward
515—353-7836

AUDITORY LEARNING MATERIALS AVAILABLE FROM EDUCATIONAL RADIO STATIONS

Compiled by
WILLIAM ANDERSON

Educational radio stations (noncommercial stations licensed and supported by school districts, colleges, and universities) have a long history of providing instructional and educational programming to public school and specialized audiences. The following list of educational radio stations (extracted from *Audiovisual Market Place*, 1972-73) maintain audiotape and record libraries of selected programs. Many of these programs and series are effective auditory learning materials for children which are not available from commercial or other sources. Availability varies, but many make copies available on a loan, rental or cost of duplication basis.

For a sample of materials available from educational radio stations, *Appendix A* contains information and offerings from WHA Radio, Madison, Wisconsin.

ARIZONA

KFCA-FM
Mr. Charles E. Buzzard
Maricopa County Community College
1202 West Thomas Road
Phoenix, Arixona 85013
(602) 264-2492

Maintains a library of audiotapes available on rental to schools, libraries, individuals, etc. Contact for listing.

CALIFORNIA

KPFA-FM
Mr. Judson Snyder, Director
Pacifica Foundation
2207 Shattuck Avenue
Berkeley, California 94704
(415) 848-6767

Maintains a library of audiotapes for sale to schools, libraries, radio stations, industry and individuals. Catalog available.

KDVS-FM
Mr. Richard Anderson, General Manager
Radio KDVS
c/o ASVCD
University of California
Davis, California 95616
(916) 752-2776

Tape catalog available.

KFJC-FM
Mr. John Hasling, General Manager
Foothill College
12345 Elmonte Road
Los Altos Hills, CA 94022
(408) 948-9870

Maintains a library of audiotapes available on exchange or sale to schools, libraries, industry, etc.

CALIFORNIA (continued)

KPFK-FM
Mr. Will I. Lewis, General Manager
Pacifica Foundation
Los Angeles, California 90038
(213) 877-2711

Audiotapes available for small cost to all interested parties. Catalog available.

KUSC-FM
Mr. Douglas Culver, Manager
University of Southern California
University Park
Los Angeles, California 90007
(213) 746-7808

Catalog of programs available.

KXLU-FM
Mr. Rene A. Marclan, General Manager
Loyola University of Los Angeles
7101 West 80th Street
Los Angeles, California 90045
(213) 670-1043

Classical and jazz musical program.

KVCR-FM
Mr. Robert G. Burningham
San Bernardino Community College
701 South Mt. Vernon Avenue
San Bernardino, California 92403
(714) 885-0234

Library of programs produced is available on audiotape on exchange or free basis to radio stations.

KSJS-FM
Mr. William Hall, General Manager
San Jose State College
San Jose, California 95114
(408) 294-6414 ext. 2550

Catalog of programs available.

IFORNIA (continued)

KCSM-FM
Dr. Jacob H. Wiens, General Manager
San Mateo Junior College
1700 W. Hillsdale Blvd.
San Mateo, California 94402
(415) 574-6427

rograms available on audiotape on
oan to schools, libraries, industry,
ther radio stations.

KCRW-FM
Santa Monica Unified School Dist.
1723 4th Street
Santa Monica, California 90401
(213) 393-2785

aintains a library of audiotapes and
ecords. Catalog of programs avail-
ble.

KUOP-FM
Mr. James H. Irwin
iversity of the Pacific
3601 Pacific Avenue
Stockton, California 95204
(209) 946-2330 ext. 2379

aintains a library of audiotapes
vailable to schools, libraries, in-
ustry, etc. on exchange basis or
ale--very nominal charge. Program
uick available.

OLORADO

KRCC-FM
Mr. Phil Ershler, Program Director
Colorado College
Colorado Springs, Colorado 80903
(303) 473-2233 ext. 335

aintains a library of audiotapes
vailable on exchange or loan to
chools.

COLORADO (continued)

KUNC-FM
Dr. William Hurt, Program Director
University of Northern Colorado
Greeley, Colorado 80631
(303) 351-3333

Maintains a library of audiotapes available on exchange or loan to schools and individuals.

KWSB-FM
Ms. Barbara Hess, Program Manager
Western State College of Colorado
Box 928
Gunnison, Colorado 81230
(303) 641-2131

Maintains a library of audiotapes available on exchange or loan to schools and other organizations rent free.

CONNECTICUT

WPKN-FM
Mr. Jeffrey N. Tellis, General Manager
University of Bridgeport
244 University Avenue
Bridgeport, Connecticut 06602
(203) 336-5364

Maintains a library of audiotapes for sale to schools, libraries, industry, individuals, and other radio stations.

WRTC-FM
Mr. Kevin S. Gracey, Program Director
Trinity College
Box 1368
Hartford, Connecticut 06106
(203) 522-9229

Programs available on 1/4 inch audiotape. Send for listing of available programs.

CONNECTICUT (continued)

WESU-FM
Mr. William Hutchins
Wesleyan Broadcast Association, Inc.
Box 2300 Wesleyan Station
Middletown, Connecticut 06457
(203) 346-7791

Maintains a library of audiotapes available on rental to schools, libraries, and non-profit organizations.

WWUH-FM
Dr. Daniel Viamonte
University of Hartford
200 Bloomfield Avenue
West Hartford, Connecticut 06117
(203) 523-4647

Maintains a library of audiotapes available on exchange.

DISTRICT OF COLUMBIA

WAMU-FM
Ms. Susan Harmon, General Manager
The American University
Massachusetts & Nebraska Ave., N.W.
Washington, D.C. 20016
(202) 686-2692

Program guide available.

WETA-FM
Mr. Donald V. Taverner
The Greater Washington Educational Telecommunications Association, Inc.
2600 Fourth St., N.W.
Washington, D.C. 20001
(202) 387-1300

Catalog of audiotape programs available.

FLORIDA

WUSF-FM
Mr. Richard Steck, Station Manager
University of Southern Florida
4202 Fowler Avenue
Tampa, Florida 33620
(813) 974-2341

Maintains a library of audiotapes available on exchange, loan and rental. Available on application. Program catalog available.

WPRK-FM
Dr. Charles A. Rodgers
Rollins College
Winter Park, Florida 32789
(305) 646-2375

Maintains library of audiotapes and 33 1/3 records. Contact for catalog.

ILLINOIS

WSIU-FM
Mr. John Kurtz, General Manager
Southern Illinois University
1056 Communications Bldg.
Carbondale, Illinois 62901
(618) 453-4343

Audiotape programs available. Free catalog, programs available to commercial and educational broadcasts, schools and colleges.

WBEZ-FM
Ms. Elizabeth E. Marshall
Board of Education, City of Chicago
228 North LaSalle Street
Chicago, Illinois 60601
(312) 641-4088 ext. 90

Library of programs occasionally available on exchange or loan to schools, libraries, other radio stations. Annual schedule availab upon request.

ILLINOIS (continued)

WGLT-FM
Mr. Ben Paxton, Jr.
Illinois State University
Normal, Illinois 61761
(309) 436-6691

udiotape programs. Catalog vailable.

WMTH-FM
Mr. William R. Mitchell,
General Manager
School District #207
Dempster and Potter Road
Park Ridge, Illinois 60068
(312) 696-2525 ext. 562

aintains a library of programs.

INDIANA

WFIU-FM
r. James Perry, Education Director
Indiana University
Board of Trustees
Bloomington, Indiana 47401
(812) 337-1357

atalog of programs available on imited basis.

WPSR-FM
Mr. Robert S. Edelman
Evansville-Vanderburg School Corp.
726 Wedeking Avenue
Evansville, Indiana 47711
(812) 425-1801

ibrary of tapes available to schools. atalog available.

WFCI-FM
Mr. Raymond Cowan, Education
Director
Franklin College of Indiana
Franklin, Indiana 46131

alog available.

INDIANA (continued)

WGVE-FM
Mr. Lawrence Ventura, General
Manager
School City of Gary
1800 E. 35 Street
Gary, Indiana 46409
(219) 962-7571

Maintains a library.

WGCS-FM
Mr. Ray Vinble, Program Director
Goshen College Broadcasting Corp.
Goshen College
Goshen, Indiana 46526
(219) 533-3161

Catalog of programs available.

WIAN-FM
Mr. Arthur Van Allen
Indianapolis Board of School
Commissioners
931 Fletcher Avenue
Indianapolis, Indiana 46203
(317) 638-3493

Maintains library of audiotapes.

WICR-FM
Mr. William Byer, General Manager
Indiana Central University
4001 Otterbein Avenue
Indianapolis, Indiana 46227
(317) 783-3730

Maintains library of audiotapes available to anyone for exchange, loan, sale, rent, free, or for postage. List of programs available.

WBST-FM
Mr. M. John Eiden, Assistant
Readio Station Manager
Ball State University
Center for Radio and TV
Muncie, Indiana 47306
(317) 285-1833

Catalog of programs available for exchange, loan, rent, sale, or free.

INDIANA (continued)

WBAA-AM
Mr. R. U. Forsythe, Educational Director
Purdue University
Hall of Music
West Lafayette, Indiana 47907
(317) 749-2385

Library of tape recordings available on exchange, loan or sale to schools.

IOWA

KDPS-FM
Dr. E. Keith Kyde, Education Director
Des Moines Independent Community School District
1800 Grand Avenue
Des Moines, Iowa 50307
(515) 284-7723

Maintains a tape library.

WSUI-AM
Mr. George Klingler, Education Director
University of Iowa
Iowa City, Iowa 52240
(319) 353-5666

Maintains library of audiotapes available on exchange, rental, or sale to schools and libraries.

KRNL-FM
Dean Robert A. Reid, Education Director
Cornell College
Mount Vernon, Iowa 52314
(319-895-6239

Audiotapes of documentary and special events programs available free, on exchange, or sale (depending on the type of program). Catalog available.

IOWA (continued)

KWAR-FM
Mr. Robert C. Gremmels, Advisor
Wartburg College
Waverly, Iowa 50677
(319) 352-1200 ext. 306

Catalog of programs available.

KANSAS

KFKU & KANU-FM
Mr. Richard F. Wright, Operations Director
The University of Kansas
Broadcasting Hall
Lawrence, Kansas 66044
(913) 864-4530

Catalog available.

KENTUCKY

WBKY-FM
Mr. Don Wheeler, General Manager
University of Kentucky
McVey Hall
Lexington, Kentucky 40506
(606) 257-2733

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WEKU-FM
Mr. James Harris, Director,
Division of Instructional Services
Eastern Kentucky University
Richmond, Kentucky 40475
(606) 622-2475

Audiotapes of programs available on exchange or loan to schools, libraries, industry and other radio stations. Catalog of programs available.

[illegible]

WMEB-FM
Mr. Wofford G. Gardner, Education Director
University of Maine
240 Stevens Hall
Orono, Maine 04473
(207) 581-7385

Maintains a library of audiotapes available to schools, libraries, ndustry, individuals, and other radio stations. Catalog of programs available.

MASSACHUSETTS

WCFR-FM
Mr. Arthur R. Cohen, Program Director
University of Massachusetts
Hampshire House
Amherst, Mass. 01002
(413) 545-0100

Maintains a library of audiotapes available on exchange, loan or sale.

WMUA-FM
Mr. Kenneth L. Horseman
English Building
University of Massachusetts
Amherst, Mass. 01002
(413) 545-2878

Maintains a library of audiotapes available on exchange or loan to schools and individuals.

WPAA-FM
Mr. Peter Halley, Program Director
Phillips Academy
Andover, Massachusetts 01810
(617) 475-3404 ext. 86

Tapes of lectures and special programs are available for price of tape, or free if tape is supplied with request.

MASSACHUSETTS (continued)

WBUR-FM
Mr. Stephen Schlow, Program Director
Boston University
630 Commonwealth Avenue
Boston, Mass. 02215
(617) 353-2790

Maintains a library of audiotapes, records--33 1/3, 78 and 45.

WTBS-FM
Professor Arnold Amstutz, MIT
WTBS Foundation, Inc.
3 Ames Street
Cambridge, Mass. 02142
(617) 868-9827

Maintains a library of audiotapes available on exchange or sale to schools, libraries, industry, etc. Catalog of programs available.

WMHC-FM
Ms. Eloise Fuller, Station Manager
Mount Holyoke College
S. Hadley, Mass. 01075
(413) 538-2044; 2063

Maintains a library of audiotapes and records (33 1/3 and 45) available on exchange or loan to schools.

WAIC-FM
Mr. Joe English, Educational Director
American International College
Springfield, Mass. 01109
(413) 737-5332 ext. 232

Maintains a library of audiotapes available on exchange or loan to schools and libraries.

MICHIGAN

WVAC-FM
Mr. Roger Wallace, President
and Educational Director
Adrian College
110 S. Madison Street
Adrian, Michigan 49221
(313) 265-5161 ext. 440

Maintains a library of audiotapes available on exchange or loan to schools and libraries.

WDTR-FM
Dr. Dorothy F. Patterson
Program Director
Detroit Board of Education
9345 Lawton Avenue
Detroit, Michigan 48206
(313) 833-7900 ext. 2161

Audiotapes of programs available on exchange or sale to schools, libraries, industry and other radio stations. Program guides available.

WKAR & WKAR-FM
Mr. Richard Estell, Educational
Director
Michigan State University
East Lansing, Michigan 48824
(517) 355-6540

Broadcasts fine arts and information programs. Operates tape distribution services, primarily for Michigan radio stations. Some programs available at cost to schools, library services, etc.

WMUK-FM
Dr. Charles Woodliff, Director
Division of Instructional Communications
Western Michigan University
Maybee Music Building
Kalamazoo, Mich. 49001
(616) 383-1921

Maintains a library of audiotapes available on exchange or loan and sale to schools or educational or commercial stations.

MICHIGAN (continued)

WEMU-FM
Mr. Richard E. Jacques, Program
Director
Eastern Michigan University
130 Quirk Building
Ypsilanti, Michigan 48197
(313) 487-3197; 2229

Maintains library of audiotapes available on exchange or loan, rental and sale (determined by use) to schools, libraries, industry, other radio stations.

MINNESOTA

KSJR-FM
Mr. William H. Kling, President
Minnesota Educational Radio, Inc.
Collegeville, Minn. 56321
(612) 363-7702

Maintains a library.

KUOM
Ms. Marion Watson, Educational
Director
University of Minnesota
Eddy Hall
Minneapolis, Minn. 55455
(612) 373-3177

Audiotapes of programs available free to schools, libraries, individuals and other radio stations. Catalog of programs available.

KSJN
Mr. W. H. Kling, President
Minnesota Educational Radio, Inc.
30 E. 10th Street
St. Paul, Minn. 55101
(612) 224-4711

Maintains a library of audiotapes for sale to schools, libraries, industry and to individuals.

SOURI

KWWC-FM
Professor Lowell A. Connor II
General Manager
Stephens College
Columbia, Missouri 65201
(314) 442-2211

Maintains a library of audiotapes; availability varies with type of material.

NEVADA

KUNR-FM
Mr. Donald G. Potter, Educational Director
University of Nevada
Reno, Nevada 89507
(702) 784-6591

Maintains a library of audiotapes, library of programs available for rental to schools and other radio stations.

NEW JERSEY

WGLS-FM
Mr. Robert Blake, General Manager and Educational Director
Glassboro State College
P.O. Box 116
Glassboro, New Jersey 08028
(609) 445-7335

Catalog available.

NEW MEXICO

Mr. Lance A. Woodworth, General Manager
New Mexico Union
University of New Mexico
Albuquerque, New Mexico 87106
(505) 277-4806

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

NEW MEXICO (continued)

KRWG-FM
Mr. Harvey Jacobs, Educational Director
New Mexico State University
Box 3J, University Park
Las Cruces, New Mexico 88001
(505) 646-4525

Maintains a library of audiotapes available on exchange or loan to schools.

NEW YORK

WNYE-FM
Mr. James F. Macandrew, President
Board of Education
City of New York
29 Fort Greene Place
Brooklyn, New York 11217
(212) 596-3335

Maintains a library of audiotapes available on exchange or loan. Catalog available.

WBFO-FM
Mr. Don G. Blakely, President
State University of New York
3435 Main Street
Buffalo, New York 14213
(716) 831-5393

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WSLU-FM
Mr. Richard D. Hutto, General Manager
The St. Lawrence University
Canton, New York 13617
(315) 379-5356; 6302-3

Free audiotapes of programs available to schools and libraries.

NEW YORK (continued)

WGSU-FM
Mr. John A. Davlin, Educational
Director
Board of Trustees
State University of New York
State University College
Geneseo, New York 14454
(716) 245-5586

Maintains a library of audiotapes available on exchange.

WVHC-FM
Dr. George N. Gordon, Director
Communications Center
Hofstra University
1000 Fulton Avenue
Hempstead, New York 11550
(516) IV9-8870, 560-3389

A library of audiotape programs is available; programs on 1/4 inch audiotape are issued on a rental basis to institutions at $15.00 per tape average (prices vary according to type and duration of program). Tapes available to libraries on a sale basis, prices on request. Catalog of programs sent on request.

WSHR-FM
Mr. Richard E. Fearns, Advisor
Radio Communications
Board of Education of Central
School District No. 5 (Sachem
Central)
245 Union Avenue
Holbrook, New York 11741
(516) 588-2700

Maintains a library of audiotapes. Library of programs available on loan to schools, libraries, industry, individuals, other radio stations.

WICB-FM
Mr. Rudy Paolangeli, Radio Director
Ithaca College
Ithaca, New York 14850
(607) 274-3214

Maintains a library of audiotapes available on exchange or loan.

NEW YORK (continued)

WBAI-FM
Mr. Edwin A. Goodman, Manager
WBAI-FM, Inc.
(Pacifica Foundation)
359 E 62 Street
New York, N.Y. 10021
(212) VA6-0880

Tapes of programs available on loan and sale to individuals and to other radio stations. Catalog of programs available.

WKCR-FM
Mr. Michael M. Meadvin, President
208 Ferris Booth Hall
Columbia University
New York, N.Y. 10027
(212) 280-5011

Tapes of programs available for sale to schools, libraries, industry, individuals and other radio stations.

WNYC
Mr. Seymour N. Siegel, Director
Municipal Broadcasting System
2500 Municipal Building
New York, N.Y. 10007
(212) 566-2115

Maintains a library of audiotapes available on exchange or loan, rental and sale to schools, libraries, etc.

WTSC-FM
Mr. Stanley Rowin, General Manager
Clarkson College of Technology
Potsdam, New York 13676
(315) 265-7180

Maintains a library of audiotapes available on exchange or loan to schools.

WRUR-FM
Mr. Sam Scott, Program Director
University of Rochester Broad-
casting Corp.
Box 5068
Rochester, New York 14627
(716) 461-1450

YORK (continued)

WHAZ
Mr. Dick West, Director
Box 784
Troy, New York 12181
(518) 272-1010

Selected library of audiotapes available on rental and sale.

NORTH CAROLINA

WUAG-FM
Mr. Emil W. Young, Jr., Director
Radio and T.V.
University of North Carolina
at Greensboro
Greensboro, North Carolina 27412
(919) 379-5405

Maintains a library.

WEDD-FM
Dr. Julian C. Burroughs, Jr.
General Manager
Box 7405
Wake Forest University
Winston-Salem, N.C. 27109
(919) 725-9711 ext. 218

Audiotapes of programs available to schools, individuals and other educational radio stations.

NORTH DAKOTA

KFJM
Mr. D. E. Beach, Director of Radio
University of North Dakota
Box 8116
Grand Forks, N.D. 58201
(701) 777-2577

Maintains a library of audiotapes and film (16 mm) on exchange or loan and rental to schools, libraries, industry, etc.

OHIO

Dr. Ruth Lewis, General Manager
University of Akron
302 E. Buchtel Avenue
Akron, Ohio 44304
(216) 762-2112

Maintains a library of audiotapes and videotapes available on exchange or loan and rental to schools, libraries, industry, etc.

WOUB-AM-FM
Mr. Joseph Welling, Director of
Broadcasting
Ohio University
College Street
Athens, Ohio 45701
(614) 594-5321

Maintains a library of audiotapes available on exchange or loan, rental and free to schools, libraries, industry, etc.

WCDR-FM
Mr. Paul Gathany, General Manager
Cedarville College
N. Main and College
Cedarville, Ohio 45314
(513) 766-2231

Maintains a library of audiotapes and tape duplication facilities.

WBOE-FM
Mr. Charles E. Siegel, Educational
Director
Board of Education
Cleveland City School District
1380 E. 6 Street
Cleveland, Ohio 44114

Catalog of programs available upon request.

WOSU & WOSU-FM
Mr. Thomas C. Warnock, General
Manager
Ohio State University
2400 Olentangy River Road
Columbus, Ohio 43210
(614) 421-2540

Maintains a library of audiotapes available on rental to schools,

OHIO (continued)

WKSU-FM
Mr. John Perry, General Manager
Kent State University
Main and Horning Road
Kent, Ohio 44242
(216) 672-2376; 7997

Maintains a library of audiotapes available on rental to schools and libraries.

WOBC-FM
Mr. Charles Perego, Educational Director
Oberlin College Student Network, Inc.
Wilder Hall
Oberlin, Ohio 44074
(216) 774-1059

Maintains a library of audiotapes available on exchange or loan to schools. Program catalog available.

WMUB-FM
Dr. Stephen C. Hathaway
Director of Telecommunications
Miami University
Telecommunications Service
Oxford, Ohio 45056
(513) 529-3521

Maintains a library of audiotapes available on exchange or loan and rental to schools, libraries, industry, etc.

WCSU-FM
Mr. Willis Parker, Program Director
Central State University
Wilberforce, Ohio 45384
(513) 376-7223

Maintains a library of audiotapes and videotapes available on rental, sale and free to schools, libraries, industry, etc.

OHIO (continued)

WYSO-FM
Mr. Dale Crouse, General Manager
Antioch College
Antioch College Union
Yellow Springs, Ohio 45387
(513) 767-7715

Library of programs (audiotapes) available on exchange or sale. Tape exchange programs and catalog are available.

OREGON

KOAC
Mr. Donald R. Larson, Educational Director
State Board of Higher Education
Covell Hall
Corvallis, Oregon 97331
(503) 754-1311

Audiotapes of programs available on sale to schools, libraries. Catalog available.

PENNSYLVANIA

WMUH-FM
Rev. George F. Eichorn, Educational Director
Muhlenberg College
Box 10B
Allentown, Pennsylvania 18104
(215) 433-5957

Maintains a library of audiotapes and printed scripts available on exchange or loan and sale to schools.

WGEV-FM
Mr. Thomas Lenz, General Manager
Geneva College
Board of Trustees
Beaver Falls, Pennsylvania 15010
(412) 846-5100

Maintains a library of audiotapes available on exchange or loan.

NSYLVANIA (continued)

WUHY-FM
Mr. Nathan Arnold Shaw, Station
Manager
WHYY, Inc.
4548 Market Street
Philadelphia, PA 19139
(215) EV2-9300

udiotapes of programs available n exchange basis to education and on-commercial stations upon request.

OUTH DAKOTA

KUSD-AM-FM
Mr. Jack Bruce, Director of Radio
University of South Dakota
Vermillion, South Dakota 57069
(605) 677-5277

aintains a library of audiotapes vailable on exchange or loan to ools (in-state only).

ENNESSEE

WSMC-FM
Mr. Don Self, Program Manager
Southern Missionary College
Box 870
Collegedale, Tennessee 37315
(615) 396-2320

aintains library of audiotapes vailable on exchange or sale to chools, libraries, industry, individuals, other radio stations. isting of services and prices vailable.

WPLN-FM
Mr. David Marshall Stewart,
Educational Director
Public Library of Nashville and
Davidson County
ighth Avenue N. and Union
ashville, Tenn. 37203
(615) 244-4700

aintains a library. Items are vailable only on individual rrangement.

TEXAS

KUT-FM
Mr. Robert F. Schenkkan, Manager
University of Texas
Box 7158, University Station
Austin, Texas 78712
(512) 471-1631

Audiotapes of programs available for rental and sale to other radio stations. Catalog available.

KTCU-FM
Mr. Larry Lauer, Program Director
Texas Christian University
Fort Worth, Texas 76129
(817) WA6-2461

Maintains a library of 16mm motion pictures and audiotapes available on exchange or loan to schools, libraries, industry, etc.

KTXT-FM
Mr. Clive Kinghorn, Educational
Director
Texas Tech. University
Tech Station
Lubbock, Texas 79409
(806) 742-6276

Maintains a library of audiotapes available on exchange or loan or free (for cost of tape).

KOCV-FM
Mr. Wally Jackson, Faculty Director
Odessa College
Box 3752
Odessa, Texas 79760
(915) FE7-5381

Maintains a library of audiotapes and records (33 1/3 and 45).

KSYM-FM
Ms. Jean M. Longwith, General
Manager
San Antonio College
1300 San Pedro Avenue
San Antonio, Texas 78284
(512) PE4-5381, ext. 381

Program catalog available.

TEXAS (continued)

KWBU-FM
Mr. Joseph C. Walters, General Manager
Baylor University
Waco, Texas 76703
(817) 755-1511

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

UTAH

KBYU-FM
Mr. Earl J. Glade, Jr., Director, Broadcast Services
Brigham Young University
C-306 Harris Fine Arts Center
Provo, Utah 84601
(801) 374-1211 ext. 3552

Audiotapes of programs available on exchange or rental to schools, educational and commercial radio stations. Catalog available upon request.

VERMONT

WNUB-FM
Mr. Peter La France, Educational Director
Norwich University
Jackman Hall
Northfield, Vermont 05663
(802) 485-5011 ext. 75

Maintains a library on exchange, loan, rental or sale to schools, libraries, industry, individuals and other radio stations.

VIRGINIA

WLUR-FM
Mr. Ronald H. Macdonald, General Manager
Washington and Lee University
P.O. Box 1153
Lexington, Virginia 24450
(703) 463-2181

Maintains a library of audiotapes available on exchange or loan to schools.

WRFK-FM
Mr. Robert W. Kirkpatrick, General Manager
Union Theological Seminary
3401 Brook Road
Richmond, Virginia 23227
(703) 355-0671, ext. 31

Audiotapes and kinescopes available on exchange or loan and rental, sale or free to schools, libraries, industry, etc. Catalog available at $3.00.

WCWM-FM
Mr. Clifford Pence, Faculty Advisor
College of William and Mary
Williamsburg, Virginia 23185
(703) 229-3000 ext. 275

Maintains a library of audiotapes available on exchange or loan to schools, libraries, industry, etc.

WASHINGTON

KCWS-FM
Mr. Roger Reynolds, President
Central Washington State College
Ellensburg, Washington 98926
(509) 963-2311

Maintains a library of audiotapes available on exchange or loan to schools.

VIRGINIA

WVWC-FM
Mr. Donald L. Singleton, Director
West Virginia Wesleyan College
College and Meade
Buckhannon, West Virginia 26201
(304) 472-7030

Maintains a library of audiotapes and videotapes, printed scripts available on exchange or loan to schools, libraries, individuals, etc.

WISCONSIN

WHA-FM
Mr. Ralph Johnson, General Manager
State of Wisconsin
Educational Communications Division
Radio Hall
Madison, Wisconsin 53706
(608) 262-2720

Catalog available.

WSUS-FM
Mr. Albert Croft, Educational Director
Wisconsin State University
2100 Main Street
Stevens Point, Wisconsin 54481
(715) 346-2696

Maintains a library of selected audiotapes available on exchange or loan to schools, libraries, industry and other broadcasting stations.

WSSU-FM
Mr. Richard DeFore, Director of Radio
Wisconsin State University
Superior, Wisconsin 54881
(715) 392-8101

Maintains a library of limited program material available on audiotape. Program guide available on request.

out this :atalog

re are about 10,000 programs in
HA-Radio's tape library. Because of
mited storage space, not all programs
re kept and few are kept for more
nan one year. Generally, therefore,
ne programs listed in this catalog fall
nto the following categories:

1) series currently being broadcast
2) series recently removed from the broadcast schedule
3) series of timeless interest saved for rebroadcast
4) series in the permanent archive collection

/e have included both instructional
School of the Air) series and educa-
ional adult series which may have
nstructional uses. Not all of the
pes in WHA's library are listed be-
use not all are permitted duplication.
you have questions about a particu-
r broadcast, write for further infor-
ation. Programs being produced
eekly are available for duplication
llowing the broadcast date. Consult
current Wisconsin School of the Air
acher's manual for this information.

urs is a duplication service. No
an, audition or rental of tapes is
ossible. If you are not certain you
ant a complete series, order a few
rograms for use and evaluation.

ome of the series listed here are avail-
ble for broadcast by other educa-
onal, noncommercial radio stations.
lease contact the Wisconsin School of
e Air for broadcast prices and autho-
zation.

Ordering procedures

When ordering an audio tape copy (dubbing) of a program, give the Recording Service the following information.

1. Title of series, number or broadcast year of series, titles of programs, and program numbers.
2. Speed of the recording. We can record at 7½ and 3¾ inches per second reel to reel, and 1 7/8 ips on cassette. No dual or four track recordings reel to reel.
3. Name and address of person to whom the bill should be sent. Name and address of person to whom the tapes should be sent.
4. Number of programs to be recorded on each tape (compute the average length of programs and length of tape at the selected speed).
    15 minute program @ 7½ ips = 600 ft
    30 minute program @ 3¾ ips = 600 ft
    30 minute program @ 7½ ips = 1200 ft
    60 minute program @ 3¾ ips = 1200 ft
    30 minute program on each track = C60 cassette
   (The convenience to the teacher in locating a program on the tape is a factor to consider.)

We recommend that you supply tape with your order. It is more convenient for us, and much cheaper for you. The tape we stock is expensive, low noise, broadcast quality with performance characteristics beyond what is needed for school use. However, tape can be purchased from WHA.

In supplying tape select name-brand, standard play, 1.5 mil tenzar or mylar tape. Reel size can be 5" or 7"; we cannot work with reels smaller than 5". Cassettes should be C60 so that you do not have to interrupt listening to turn over the tape.

The prices quoted include mailing unless you wish first class or special delivery service.

Dubbing fee: $2.70 per program

Tape Prices
1200 foot: $2.80
600 foot: $1.70
C60 cassette: $1.85

EXAMPLE: If you want to purchase WHA tape and record two 15 minute programs per tape at 7½ ips the costs would be $2.80 for a 1200 foot tape plus $2.70 per program dubbing fee or a total of $8.20 for the order.

NOTE: THESE PRICES ARE FOR NON-BROADCAST CLASSROOM USE. RADIO STATIONS MUST CONTACT THE WISCONSIN SCHOOL OF THE AIR FOR BROADCAST PRICES AND AUTHORIZATION.

We have a limited number of teacher's manuals and will provide one with the purchase of a complete series as long as the supply lasts. Please request a manual in your order.

Address orders to Recording Service, WHA-Radio, 821 University Avenue, Madison, Wisconsin 53706.

New World New Lives

(Grades 5-9)

Toward providing background upon which to build more specific knowledge of Latin America and Canada, this series uses fictitious and often amusing characters and situations to illustrate and clarify broad historical concepts. A useful supplement to social studies. Series produced in 1961 Programs are 15 minutes in length.

1. Bienvenidos, Amigos!
2. What's In a Name?
3. Professor Pablo
4. The Place of the Tenochcas
5. The Civilization That Corn Built
6. Thatched Roof, Golden Earplugs
7. Hands That Rocked the Hammocks
8. Iberians
9. Spaniards in Two Parts

When One Culture Meets Another

11. One Song, Two Verses
12. With Grace and Gentleness
13. Of Revolutions and Spanish Pans
14. The Missing Keystone
15. Los Caudillos: The Dictators
16. There Is a Difference Between Revolutions
17. The Continuing Revolution
18. The House of the People
19. Revolution in a Valley
20. Brazilian Pioneers—Old Style
21. Brazilian Pioneers—New Style
22. How to Govern a Gaucho
23. Silver, Strangers, and Starvation
24. Neighbors
25. Of Fish and Fur and Fool's Gold
26. Pots and Pans, Plows and Spinning Wheels
27. Birds of Different Feathers
28. A Family Matter
29. Hordes and Swarms and Herds
30. The End

Old Stories and New Ideas

(Grades 4-6)

Hazel Stewart Alberson has a rare ability to relate myths and fables of other worlds and ages to each man's every day. Selections from Greek, Roman and Norse legends, stories from Japan, China, Ireland, and Burma become vehicles for Mrs. Alberson's modern applications. Karl Schmidt's presentation of these selections is an excellent example of story-telling as an oral art form. Teachers have used these programs to motivate further reading, art work, creative writing, and special projects of many kinds. Program length varies from 16 to 25 minutes.

1. Phaeton's Folly
2. Hermes
3. Flood Stories
4. Prometheus
5. Creation of Woman
6. Daedalus and Icarus
7. King Midas
8. The Power of Music
9. Stories for Fun
10. Hospitality
11. White Horses
12. The Soil and the Seasons
13. Thor's Journey to Giantland
14. Contests
15. Odysseus, the Adventurer
16. The Poet as Storyteller
17. Prelude to a Life of Heroism
18. The Light and the Dark
19. Beginnings and Endings
20. The Story Teller's Use of Animals
21. Stars in Your Past and Future
22. Gratitude and Ingratitude
23. Unpredictable Nature
24. Father of His Country
25. Dragons—Friendly and Unfriendly
26. The Elephant's Bathtub
27. Conqueror of All
28. Wisdom in a Nutshell
29. A New Story with an Old Formula
30. Athena and Athens

Reckoning with Boris

(Grade 3)

Boris, President of the Finger Counters of the World, is a funny, stubborn, and dedicated hater of mathematics, who collides humorously with reasonable explanations of addition, subtraction, and multiplication—among other things. With his help, children begin to see mathematics as an entertaining man-invented subject, rather than an abstract, abstruse necessity.

The series is designed to supplement "new math" at third grade level, and is paced to stay a little behind the classroom curriculum. Programs are under 20 minutes in length.

1. Mathematics Before Boris
2. The Value of Place
3. A Fight for Zero and Inequality
4. More Thousands and a Review
5. The Road to Mathematics
6. Boris Begins Adding His Problems
7. Additional Problems With the Ladies
8. Sums, Differences, and Igor
9. Reviewing with Ryegood
10. Some Strange Uses of Mathematics
11. The Matter of Two-Digit Addition
12. The Matter of Two-Digit Subtraction
13. A Very Merry Jack Horner Day
14. Another Addition and Subtraction Matter
15. Some Practical Addition and Subtraction
16. A Calculated Review
17. A New Device: Multiplication
18. Some Important Factors in Multiplication
19. One More Principle and a Few Facts
20. Some Factors and a Horse
21. Some Very Practical Multiplication

SECTION EIGHT

CORRESPONDENCE

During the project year there were numerous contacts between the Consortium and member units. This section of the report contains representative correspondence from member units showing their contributions to the overall Consortium effort.

State of Illinois
Office of the Superintendent of Public Instruction
Springfield, Illinois 62706

Michael J. Bakalis
Superintendent

March 13, 1973

MEMORANDUM

TO: Mrs. Lou Alonzo

FROM: Margaret Niederer Margaret

SUBJECT: Auditory learning areas in which Illinois would be interested.

The initial writing of the Illinois project that involves auditory learning proposes to locate, adapt and/or develop listening skills packets for visually impaired students. I am enclosing a copy of that writing, but briefly:

9/73	Literature will be reviewed and appropriate listening skill materials will be isolated, cost ascertained and purchased.
10/73	Working committee will be appointed (teachers, auditory specialists, etc.)
11/73	Specific skills required for visually impaired students will be identified.
3/74	Meet to discuss adaption/development.
6/74	Developments/adaptions outlined-raw material is submitted.

The interlock would be especially helpful in identifying needed materials and locating usable materials.

The person, who will be in charge of this project, is Miss Corinne Cloppas, 10400 West Diversey, Franklin Park, Illinois 60131, 312-455-4033. She will be the contact for Illinois. Please refer all further correspondence to her.

encl.

MN:ksd

cc: Gloria Calovini
Corinne Cloppas

MEDIA CENTER for the DEAF

Teachers College UNIVERSITY OF NEBRASKA Department of Educational Administration

MIDWEST REGIONAL MEDIA CENTER FOR THE DEAF

Nebraska Hall 175 402-472-2141 Lincoln, Nebraska 68508

July 19, 1973

Dr. Ted Ward
Associate Director
Professor, Education
College of Education
Michigan State University
East Lansing, Michigan 48823

Dear Ted:

Enclosed are my receipts for air travel to Chicago and the hotel statement for lodging Tuesday night at the O'Hare International Tower Hotel. My only other expense was for food ($1.65 + $1.75).

Again let me say that I was sorry that I could not be there for the first session. I do believe that the Consortium is now launched and that time will show us many ways by which we can cooperate with each other. I, too, feel the need for a fall meeting. Once we actually start on the project I think we will need reinforcement and direction.

Enjoyed working with you again.

Sincerely yours,

Robert E. Stepp, Jr., Ph.D.
Project Director

RES/edr

Enclosures

Bureau of Education for the Handicapped
Division of Educational Services

University of Northern Colorado · Greeley, Colorado 80639

College of Education
School of Special Education and Rehabilitation
RMSEIMC

303/351-2681

September 27, 1973

Mr. Bill Anderson
218 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Mr. Anderson,

Concerning your request, I must first explain that RMSEIMC's material classification is not a computerized system, but is based upon a set of card files. Any materials may be located by author, title (sometimes publisher), and Subjects. The subjects descriptors are based on the enclosed subject heading authority file. I have put an asterisk by subjects that deal with auditory learning.

Auditory learning materials may also be located by using the enclosed ITPA bibliography.

Following are examples of some auditory learning materials and their subjects:

1. Auditory Perception Training, DLM
    a. Auditory Perception
    b. Visual Perception
    c. Fine Motor Coordination
    d. Language Development
    e. Concept Formation
    f. Memory
    g. Figure-ground Discrimination

2. Listening Progress Laboratory, Dorothy Kendall Bracken, EPC
    a. Listening Skills, Development of
    b. Individualized Instruction

3. Initial Consonant Learning Module, Society for Visual Education, Inc.
    a. Preschool Education
    b. Reading - Primary
    c. Reading - Preprimary
    d. Phonics
    e. Individualized Instruction

4. ADD (Auditory Discrimination in Depth), Teaching Resources
    a. Auditory Discrimination
    b. Listening Skills, Development of

I hope this information has been of help to you.

Sincerely,

Marcie Haloin

Marcie Haloin
Instructional Materials Associate

MH/cp

CEC Information Center on Exceptional Children

THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive
Reston, Virginia 22091

November 1, 1973

Mr. S. Joseph Levine
Coordinator - Media & Materials Development Unit
Great Lakes Regional SEIMC
Michigan State University
213 Erickson Hall
East Lansing, Michigan 48823

Dear Joe:

Thank you for the opportunity to examine and hear the contents of the Audio Newsletter on A Classification System for Auditory Learning Materials distributed by the Consortium.

I am pleased that you were able to adapt the National Instructional Materials Information System (NIMIS) Master Record to your needs without major difficulties. It is this type of adaptation that was anticipated when the NIMIS record was designed. It's nice to have the feedback.

Enclosed is a copy of the September, 1973 Thesaurus of ERIC Descriptors which may be useful in noting which instructional materials descriptors are in ERIC at the present time. For those which are not in ERIC and you feel would be appropriate, several Descriptor Justification Forms (DJF's) are enclosed. We would be happy to act as the entry point for you on these matters.

Eventually the "Instructional Materials Thesaurus Second Edition" due in early 1974, will include descriptors tagged solely for use with instructional materials. Those descriptors of a professional nature will be candidates for inclusion in the fourth edition of the Thesaurus for Exceptional Child Education (copy included) which is composed of "pure ERIC" i.e. approved terms. We expect to publish that edition in the late summer of 1974. Please note the differences in the three thesauri you now have to avoid any obvious confusion!

Sincerely,

Carl

Carl F. Oldsen
Assistant Director

Enclosures

AN EDUCATIONAL RESOURCES INFORMATION CENTER • MEMBER OF THE SPECIAL EDUCATION IMC/RMC NETWORK

Teachers College UNIVERSITY OF NEBRASKA Department of Educational Administration

MIDWEST REGIONAL MEDIA CENTER FOR THE DEAF

Nebraska Hall 175 402-472-2141 Lincoln, Nebraska 68508

November 13, 1973

Dr. Ted Ward
Great Lakes Area Special
 Education Instructional Materials
 Center
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48825

Dear Ted:

First, may I compliment you upon the concept of a one-day meeting. I thought that we accomplished a great deal in a short period of time.

Under separate cover I am mailing to you a copy of our University film rental catalog. You may be interested in how it was produced. This catalog is ~~computer~~ compiled, but off-set printed. If you have questions about the process, I ~~can~~ obtain all the information from Dr. Jim Buterbaugh.

My expenses are as follows:

		Meals--	
Plane fare	$89.91	Nov. 8 lunch	$2.36
Limousine to airport	2.25	dinner	3.60
Limousine from airport	2.25	Nov. 9 breakfast	1.85
Hotel	30.77		

If you have not done so, may I suggest that you write ~~to the~~ National Center for Audiotapes, University of Colorado, Stadium Building, Boulder, Colorado 80302, and request their catalog and supplements. You may be interested in the tape catalog from Lifelong Learning, University Extension, University of California, Berkley, California 94720.

See you in February if not before.

Sincerely yours,

Bob

Robert E. Stepp, Jr., Ph.D.
Project Director

RES/edr
Enclosure under separate cover

the national center on educational media and materials for the handicapped

the ohio state university 220 west 12th avenue, columbus, ohio 43210/(614)422-7596

13 November 1973

Mr. Ted Ward, Coordinator
Consortium on Auditory Learning Materials for the Handicapped
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Mr. Ward:

I am very sorry to have missed the November 9 meeting of the Consortium on Auditory Learning Materials for the Handicapped. As I explained on the phone to Mr. Anderson, the TWA strike made it impossible to arrive in Chicago before mid=day, but I hope the other participants were not similarly affected.

The Center would appreciate receiving any summary of the meeting which you publish. It should be sent to the attention ~~of Dr. Ann H.~~ White.

Sincerely,

Daphne Philos

Daphne Philos

mem

Funded by HEW
USOE Bureau of Education
for the Handicapped
Media Services and Captioned Films
Contract OEC-0-72-4478

UNIVERSITY OF KENTUCKY
REGIONAL SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTER
730 SOUTH LIMESTONE STREET
LEXINGTON, KENTUCKY
40506

COLLEGE OF EDUCATION
DEPARTMENT OF SPECIAL EDUCATION

606—258-4921

July 19, 1973

Ted Ward
Consortium Coordinator
213 Erickson Hall
Michigan State University
East Lansing, Mich. 48823

Hello Ted,

I am enclosing both flight and room receipts as you requested at the July 17 meeting of the Consortium on Auditory Learning Materials. To my memory meal receipts were not requested. If you need them, please contact me.

I want to thank you for the total learning experience! I was particulary impressed with your personal leadership skills. The Consortium is fortunate to be influenced by someone with that talent.

sin~~cerely,~~
B.
Bonnie Wakefield
Materials Specialist

enclosure

MEMBER: INSTRUCTIONAL MATERIALS CENTER NETWORK FOR HANDICAPPED CHILDREN AND YOUTH
AN EQUAL OPPORTUNITY UNIVERSITY

Teachers College UNIVERSITY OF NEBRASKA Department of Educational Administration

MIDWEST REGIONAL MEDIA CENTER FOR THE DEAF

Nebraska Hall 175 402-472-2141 Lincoln, Nebraska 68508

December 12, 1973

Dr. Ted Ward
Great Lakes Area Instructional
  Materials Center
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Dear Ted:

Auditory tape #2 came through loud and clear. I like the idea of using the compressed speech technique. We need to apply this approach for the deaf by using video tape cassettes. I haven't figured out how to compress vision, but the format could be similar.

The reason for this letter is to suggest that the Consortium not meet again until after the 1974-75 proposals are written and submitted. As you know, the proposals must be turned in by February 15. I am booked until February 25.

Sincerely yours,

Bob

Robert E. Stepp, Jr., Ph.D.
Project Director

RES/edr

Bureau of Education for the Handicapped
Division of Educational Services
Media Services and Captioned Films

State of Illinois
Office of the Superintendent of Public Instruction
Springfield, Illinois 62706

Michael J. Bakalis
Superintendent

December 18, 1973

Dr. Ted Ward, Coordinator
Consortium on Auditory Learning
Materials for the Handicapped
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Dr. Ward:

As per the consortium assignments, I have enclosed the definitions used on the Illinois input form and an update of the progress on the Illinois projects; also, included is Jacqueline Crain's assignments, the description of auditory learning and the emotionally disturbed and effectively handicapped; and the description of music therapy as an auditory learning task.

If there are any questions concerning the information I have sent you, please write or call. By the way, would you mind asking Joe Levine if he ever found out the source of the Vision Index? I called him about a month ago and am awaiting his answer before I make a final reply to a request.

Thank you for your guidance and help and especially, the Audio Newsletter.

Sincerely,

Margaret Niederer

Mrs. Margaret Niederer
Statewide Coordinator
Materials Development Team
Department for Exceptional
Children

MN:kd

Enclosures

Instructional Materials Center
1020 South Spring Street
Springfield, Illinois 62706

the national center on educational media and materials for the handicapped

the ohio state university 220 west 12th avenue, columbus, ohio 43210/(614)422-7596

March 11, 1974

Mr. Bill Anderson
Consortium on Auditory Learning
213 Erikson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Bill:

The meeting was a real success! I want to thank all of you for allowing me to participate.

Enclosed is a copy of my airline ticket and a list of expenses. I will write a check to The Ohio State University covering my expenses so you will reimburse me directly. This is the customary procedure for Ohio State.

I'm looking forward to the next meeting of the Consortium.

Sincerely,

Aleki C. Nickles, Ph.D.
Coordinator, Early Childhood Projects

AN/ds

Encl

Funded by HEW
USOE Bureau of Education
for the Handicapped
Media Services and Captioned Films
Contract OEC-0-72-4478

THE PENNSYLVANIA STATE UNIVERSITY
School Psychology Program
207 CEDAR
UNIVERSITY PARK, PENNSYLVANIA 16802

Department of Special Education
Developmental and Remedial Reading
Education of Exceptional Children
Speech Pathology and Audiology
School Psychology Program

Area Code 814
865-7523

March 11, 1974

Dr. Ted Ward
312 Erickson Hall
Michigan State Univ.
East Lansing, MI 48824

Dear Dr. Ward:

Thank you for an interesting and eudcational meeting. I was very impressed by the directions and organization of the Consortium and hope that in the future I can be of assistance.

Attached is a bill for my expenses incurred Thursday, March 7, 1974, as you requested:

$111.91	- plane fare
40.00	- car travel
$151.91	TOTAL

With warmest personal regards,

Sidney R. Miller

dsp
enc

The ERIC Clearinghouse on Handicapped and Gifted Children

March 14, 1974

MEMORANDUM

To: Members: Consortium on Auditory Learning Materials for the Handicapped

From: Carl F. Oldsen

Subject: Descriptor Justification Form (DJF) for Thesaurus of ERIC Descriptors

Enclosed is a copy of the current DJF in use by the ERIC Lexicographer's office for the input of new or change in scope of the present ERIC thesaurus terminology. As you can see, it is a rather formidable procedure primarily to discourage indiscriminate changes. However, we will be happy to assist in acting as the conduit for terms you wish to send to us. Please pay particular attention to the area where it asks for references in the literature. It is necessary for this to be cited and your providing that reference will be appreciated.

If you have questions please feel free to call or write directly.

The Thesaurus of ERIC Descriptors is updated monthly for Clearinghouse use and as copies are available we will be happy to share them with you.

Included below is the descriptor and identifier counts for the instructional and professional materials thesauri we are currently working with.

Instructional Materials Thesaurus, 701 terms, 552 descriptors, 353 of which are in ERIC, 149 identifiers.

Professional terms from above thesaurus has 688 terms, 601 descriptors, 505 of which are in ERIC, 87 identifiers.

Enclosure

CFO:rc

Affiliated with the CEC Information Center
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, Virginia 22091

State of Illinois
Office of the Superintendent of Public Instruction
Springfield, Illinois 62706

Michael J. Bakalis
Superintendent

March 20, 1974

Mr. Bill Anderson
Michigan State University
213 Erickson Hall
East Lansing, Michigan 48824

Dear Bill:

I would like to thank you for attending our listening skills meeting. Your presence added a great deal, in that the committee members gained a clearer understanding of how our project can interlock into the Consortiums'.

If we can be of any assistance in the final aspects of your project, please feel free to contact us.

Sincerely,

Bobbie S. Cheaney
Instructional Materials
Specialist

BSC:zb

Instructional Materials Center
1020 South Spring Street
Springfield, Illinois 62706

Bill, if possible would you forward the reinbursement check for my lodging at the O'Hara International to my home address:

107 West Lawrence
Springfield, Illinois

the national center on educational media and materials for the handicapped

the ohio state university 220 west 12th avenue, columbus, ohio 43210/(614) 422 7596

March 28, 1974

Mr. Joe Levine
Coordinator: Media and Materials
Development Unit
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Dear Joe:

Enclosed are your questionaires, I do hope they reach you in time. You caught us during the springbreak so they're a little slow getting back. I'll send the others along as soon as they are returned to me.

One of the girls here has sent your call for papers out to people she knows. She has worked with the blind and is extremely interested in the consortium activities.

Keep me posted.

Sincerely,

Aleki C. Nickles, Ph. D.
Coordinator, Early Childhood Projects

ACN/ds

Encl

Funded by HEW
USOE Bureau of Education for the Handicapped
Media Services and Captioned Films
Contract OEC-0-72-4478

THE PENNSYLVANIA STATE UNIVERSITY
COLLEGE OF EDUCATION
207
UNIVERSITY PARK, PENNSYLVANIA 16802

Department of
Special Education

March 29, 1974

COLLEGE OF
EDUCATION
1974

Carl F. Oldsen
ERIC Clearinghouse
CEC
1920 Association Dr.
Reston, VA 22091

Dear Mr. Oldsen:

Thank you for your memorandum of March 14, 1974, on procedures for submitting material for the ERIC Thesaurus.

As part of the Consortium on Auditory Perception and Learning Materials, we have actively participated with other individuals from a number of universities in developing descriptors and identifiers. We believe the work of the Consortium will advance the state-of-the-art in the auditory field.

We further propose that a meeting of the Consortium and ERIC Clearinghouse officials be held so that the process of updating the ERIC file could be accelerated. We are fearful that unless a procedure is developed for including some of the Consortium's work in the ERIC file, many duplicate efforts will occur--costing considerable money--before others in our discipline become familiar with the Consortium's work. Obviously, this meeting could also involve a review of descriptors and identifiers submitted by other interested parties.

Thank you for your time and interest.

Most warmly,

Sid Miller

Sidney R. Miller
Curriuclum Development

llm

State of Illinois
Office of the Superintendent of Public Instruction
Springfield, Illinois 62706

Michael J. Bakalis
Superintendent

April 22, 1974

Mr. Bill Anderson
213 Erickson Hall
East Lansing, Michigan

Dear Bill:

Enclosed find the material identification forms which our committee on listening skills completed at your request. In reviewing the forms I found that the committee members neglected to fill out the forms completely.

We hope this information will assist you in your project.

Sincerely,

Bobbie S. Cheaney

Bobbie S. Cheaney
Instructional Materials
Specialist

BSC:zb

Instructional Materials Center
1020 South Spring Street
Springfield, Illinois 62706

SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTER

UNIVERSITY OF WISCONSIN-MADISON
2605 MARSH LANE
MADISON, WISCONSIN 53706

Office: (608) 263-5848
Director: (608) 263-5860

May 31, 1974

Mr. William Anderson
Great Lakes Region SEIMC
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Mr. Anderson:

Enclosed are copies of Auditory Instructional Material Indentification Information forms which our staff have completed for materials which we believe may be of assistance to you for addition to your listing of auditory learning materials.

There may be some overlap of materials you have already identified, but we hope there are some which will be new additions. We have used our own judgement according to criteria gathered from the Auditory Consortium, of which our director, Dr. James J. McCarthy is a member, for deciding which materials would be useful for your project. This work, as I mentioned to you on the phone, is part of a project of ours for identifying materials for severly retarded children. We have a total of approximately 300 items identified. Please let us know if you would like us to send you copies of the information sheets for the rest of the materials for your examination.

Thank you for sending the copy of the catalog from which you are using for your materials and the information booklet entitled, "Classifying Auditory Instructional Materials." We will be using these as a resource in developing our own catalog of materials, and we look forward to receiving the list of your auditory materials.

Sincerely,

David A Logan

David A. Logan
Library Manager

DAL/jd
Enclosures

MEMBER: SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTERS/REGIONAL MEDIA CENTERS NETWORK

SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTER

UNIVERSITY OF WISCONSIN-MADISON
2605 MARSH LANE
MADISON, WISCONSIN 53706

Office: (608) 263-5848
Director: (608) 263-5860

July 19, 1974

Mr. William Anderson
Great Lakes Region SEIMC
213 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Dear Mr. Anderson:

Enclosed is the request for information concerning availability of publications from your Center which I mentioned to you on the phone a couple days ago. I appreciate your efforts in following up on this inquiry.

Thanks again for your assistance with information about the catalog format for the Consortium on Auditory Learning. We are using the information as a guideline for producing our catalog of educational materials for use with severely retarded children.

Sincerely,

David A Logan

David A. Logan
Library Manager

DAL:ja

Enc. 2

MEMBER: SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTERS/REGIONAL MEDIA CENTERS NETWORK

213 Erickson Hall
Michigan State University
East Lansing, MI 48824

GREAT LAKES REGION SEIMC

MEDIA
AND
MATERIALS
DEVELOPMENT
UNIT

NEW PRODUCT REPORTS

AUDITORY LEARNING MATERIALS FOR HANDICAPPED CHILDREN

The work presented herein was performed pursuant to a Grant from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

NEW PRODUCT REPORTS

INTRODUCTION

During the year, the Media and Materials Development Unit had an opportunity to investigate a number of auditory instructional materials designed by staff members. It was felt that the experience of the staff in the examination of commercially available auditory instructional materials could provide a strong basis for the extensive design of new materials. Reports outlining the design of each new material and the results of field testing are included in this section. The materials described are:

A Job For You (Page 1) - A material designed by staff to create an awareness of the changing roles of men and women in the world of work.

Audio/Visual Tell A Story (Page 9) - A material designed by staff to probe innovative uses of audio flashcards and stimulate language.

Favorite Foibles (Page 33) - A material designed by staff to aid children in identifying personality characteristics that lead to inappropriate behavior.

Understanding Ourselves and Others (Page 41) - A material designed by staff to provide preschool children an opportunity to cope with stressful everyday situations.

Decision Making: What Do You Think... (Page 59) - A material designed by staff to build decision making skills in the affective domain.

Gorgols (Page 67) - A values-related musical story designed for elementary aged children. This material was loaned to the Media and Materials Development Unit by the producer for evaluation.

Use of Environmental Sounds to Elicit Language (Page 71) - A staff report on a study that examined the use of materials with environmental sounds to assist in attention, awareness, and verbalization.

"A JOB FOR YOU"

William A. Anderson

Introduction

The first step in the career education process is the career awareness phase where the objective is to help all individuals become familiar with the values of a work oriented society. It exposes individuals to a variety of work experiences so that they know and understand those that exist. Career awareness does not seek to impose any particular set of work values; rather it simply assumes that a person cannot develop his/her own work values unless he/she is familiar with those held by others and understands their basic effects upon individuals and upon society.

Unfortunately, there have been many artificial barriers erected to prevent men and especially women from exercising the full amount of career options available to them. Via legislation and corporate consciousness, some of the barriers are being lowered and in some instances, removed; yet many barriers still remain.

There is a need for instructional materials to create an awareness within the elementary student of the new range of career choices emerging for men and women. The auditory learning material described below is an attempt to make a small contribution to the design and development of such instructional materials.

Material Design

"A Job For You" was designed to be used with students of the upper-elementary level. It was designed to create an awareness of the new range of career choices emerging for men and women. Its specific objective is as follows:

> Given descriptions of different occupations in the world of work, the student will be able to demonstrate an awareness of the changing job roles of men and women by identifying those occupations presently open to both sexes, for men only and for women only so well that the student correctly identifies eight of the ten occupations presented in the posttest.

In operationalizing the above objective, a pretest was given to each student where he/she was asked to state which of the ten occupations presented were available for men, women or for both sexes. The student was then asked to listen to a brief interview with a lady carpenter and a male telephone operator. These people discussed their job and some of the unique aspects of being a female in a traditionally male-oriented occupation or vice-versa. At the end of each interview, the narrator asked questions designed to probe the student's current beliefs and values about jobs and gender.

At the completion of the auditory instructional unit, the student was given a posttest similar to the pretest (but with different occupations) and asked to classify each as being an occupation for females, males or both sexes.

Material Use

The material was designed to be used either as an instructional unit with a group of students, or with a teacher and an individual student. The material was designed to be used with a wide variety of learner audiences. The narration is constructed so as not to rely heavily on visual stimuli, however there are pictures of the two people interviewed at their jobs. The two jobs presented are those that certain handicapped students could pursue as an occupation. In general, the material was designed to be used with as wide a range of students as possible.

Field Test Information

"A Job For You" was field tested at three different sites: Michigan School for the Blind, Waverly Learning Center, and Bailey Elementary School. Three different evaluators used the unit with a total of ten different students in individualized settings. In all instances, the pretest--unit presentation--posttest procedure was followed.

From the field test evaluation form used to record student behavior during the instructional unit, it appears that all students attended well to the information presented in the tape. Forms report numerous student interactions to material presented in the unit and little ambient behavior was recorded. As for pre/post test results, seven of the ten students met the 80% accuracy criterion established in the objective. All but one of the students demonstrated posttest results approximating the desired behavior. In short, based upon an immediate posttest, the students tested appeared to demonstrate an awareness of career opportunities available to both men and women without regard to artificial career barriers.

4

Summary

As stated above, "A Job For You" appeared to achieve its stated objective. It must be noted, however, that the evaluation procedure used cannot be considered as statistically valid. If time had permitted, a more accurate measure of behavioral change would have been to test the students again after their initial posttest responses. This was not possible, however.

Specific recommendations for improvement might be to include more examples of occupations available for handicapped audiences and to construct a more valid evaluation procedure to measure behavior over time.

Appendix A

SCRIPT DRAFT

Music fade-in/out

Discussion between two kids playing house:

Girl: Ya' wanna play house?

Boy: Okay. I'll be the father and go to work and you be the mother and stay home and take care of the kids.

Girl: Why do I have to stay home? I wanna go to work too.

Boy: No, girls have to stay home.

Girl: Do not

Boy: Do too

Girl: Do not...(fade out as they argue)

Music fades back in (5 sec.) then out.

Male: A long time ago, kids about your age already had a pretty good idea of what they were going to be when they grew up. If you were a *boy*, you usually worked in the same kind of job as your father...or maybe you even worked with your father and took over his business when he retired.

Female: And if you were a girl, well, you probably didn't even *think* about getting a job. In those days, only poor girls worked, and they worked in jobs such as secretaries, nurses and in the factories. But most women stayed at home and cooked and sewed and took care of the children while the husband went to work.

Male: Today, however, a lot of the old ideas about jobs are changing and kids are choosing the jobs *they* would like to do most, and not the jobs other people have chosen for them. Have you thought about the kinds of jobs you would like to do when you grow up? I'll bet you can come up with a pretty good list.

Female: But think about this: some people still believe that there are some jobs that are just for girls and other jobs that are just for boys. For example, do you think that all nurses are women? Well, did you know that a lot of boys are nurses...and secretaries and telephone operators.

Male: And that a lot of girls are carpenters, engineers, and business executives.

Female: As you think about what you want to do when you grow up, do you think only about what some people think of as "boy's work" or "girl's work," or do you think about all the jobs that are open to you?

Let's talk with two people who have some interesting jobs and hear what they have to say about "boy's work" and "girl's work."

(Insert of Sandy, lady carpenter, in construction setting.)

Sandy: I wanted to fix up my apartment and I didn't have too much money, so I started building bookshelves, bookcases and kitchen cabinets. They turned out so well that one of my friends suggested that I do this as my job.

Female: That's Sandy, and she has a job that's different from the kind most girls have...she's a carpenter.

Sandy: I've made closets, coffee tables, kitchen cabinets, bathroom cabinets...well, about anything. Where I work right now I'm working with all men. With the exception of hauling huge pieces of wood, women can do about anything a man can do as far as carpentry goes. When it comes to cutting lumber, you have these great power tools. You don't need strength.

Female: Sandy's job is a job that is generally considered a man's job. How do you think she would feel about having a husband who had what many people think is a girl's job? Let's listen.

Sandy: If my husband was say, a secretary, gee, I would think that would be great. I would have a lot of respect for a man who can stand up to the pressures of being a secretary. If he wants to be a secretary, I think that's the greatest thing in the world.

Male: Sandy chose her job as a carpenter because it was one she liked and she didn't pay attention to people who said being a carpenter is "boy's work." People like Sandy are helping others to think over old ideas about what is "boy's work" and what is "girl's work."

1) Can you name some jobs where you've seen girls working at a so-called "boy's job?"

2) Do you know a girl who has a job that is considered "boy's work?"

(PAUSE)

Sound of dialing, telephone buzzing and being answered by a male voice, "This is the operator, may I help you?"

Male: Have you ever heard of a male telephone operator? Well, let's talk with Larry to hear what he says about being one of the few male telephone operators in the United States.

Larry: I guess two years ago I never would have ever dreamed about being a telephone operator. But one of my friends got a job as an operator and he started telling me what he did and I got interested and applied.

The training I went through was really great. I've always liked helping people and I guess being a telephone operator is one way to do it.

The job is really interesting too, ya' know. Like last week I helped a lady place a call to Viet Nam, and another person had an emergency and I had to call the fire department for her.

Some people have kidded me about being a telephone operator and you get used to it. I don't think they really understand why I took the job. But I like the work and sooner or later most of my friends understand.

Female: Larry is another person who has looked beyond those jobs considered "men's work," and found an exciting and rewarding job.

1) What are some jobs that boys can have that they don't generally have?
2) Do you know some boys or men who have so-called "girl's jobs?"
3) Do you think you would like a job like Larry's?

(PAUSE)

Male: There's a lot of changes taking place right now in jobs around the world. Did you know that in Russia most of the doctors are women?

Female: Or that in New York city many of the part-time secretaries and office girls are actually men?

Male: That's right, all kinds of jobs are opening up to both boys and girls because people are beginning to change their ideas about what is "boy's work" and what is "girl's work."

When you think about what you want to be when you grow up, look at all the jobs around you and see which ones you like.

And don't let old thinking stop you from taking the job you like; you make the selection of the job for you.

Fade in music for 5-10 seconds, then out.

"AUDIO/VISUAL TELL A STORY"

James W. Fleming

The "Audio/Visual Tell-A-Story" study was designed to study the responses of elementary age pupils to stimuli of an auditory and visual nature. Sound effects or pictorial representations of specific sounds were presented as stimuli and the subjects were asked to tell a story using the stimuli. Non-verbal sounds were selected from various "sound effects" records available commercially.

The sounds were recorded on audio flashcards. The audio flashcards used in the study each contained four separate recording tracks. A single sound was recorded on each track. The audio flashcard reader utilized was one produced by Electronic Futures Incorporated (EFI). The EFI unit includes four buttons to selectively retrieve any of the four sounds. This equipment was selected for the study due to its unique configuration that allowed selection of sound tracks by the user. Though the equipment has the facility to record sound, this feature was not employed for the study.

Each child that participated in the study was given two tasks. Both tasks were to create stories based on an open-ended stimulus. One task used the audio flashcard to present sound stimulus. The other task used simple drawings to present visual stimulus.

The study was an attempt to measure how well "auditory learners" did with auditory stimulus materials as compared with visual stimulus materials. Another question investigated was "Can language be stimulated as effectively by an auditory stimulus as by a visual stimulus?" The study was also concerned with how well the learners liked the activity and how interested they seemed during the task (i.e., Could the task maintain their interest?). Experimental format, general directions, and data recording sheets were evaluated as to their clarity, conciseness and ease in recording data. Data collection procedures were examined to assess their effectiveness in yielding useful data.

Twenty sounds were used initially to determine which sounds were most easily identified by school children. From this set of twenty, a total of sixteen were selected as beginning non-ambiguous and easily identifiable. Four stimulus sets were developed, each using four specific sounds. Each set had an audio flashcard on which the four sounds were recorded on separate tracks. The set also included visual representations (pictures) of the four sounds. Three sets were used (Set A, Set B, Set C), and a fourth set was used as a demonstration set to introduce the activity to the child. Sounds were grouped for each set as to how well they inter-related with each other.

Set A(a)	Set A(v)	highly related sounds
Set B(a)	Set B(v)	somewhat related sounds
Set C(a)	Set C(v)	not related sounds

(a) = Audio Tell-A-Story
(v) = Visual Tell-A-Story

The four sets of sounds used were as follows:

Set A:	Car horn
	Train whistle
	Train
	Railroad crossing bell
Set B:	Man snoring
	Hammering
	Jet plane
	Woman laughing
Set C:	Sawing wood
	Squeaky door
	Telephone ringing
	Pouring liquid
Demo:	Dog barking
	Motorcycle
	Dishes breaking
	Doorbell

A treatment procedure was established to standardize and control what specific sets were presented to the subjects. Each child received both the auditory material and the visual material. If a child received a visual stimulus set first, an auditory flashcard set was used next. Twelve specific presentation treatments were developed. All were used in the study at least once.

Treatments

#1	A(a) → B(v)	#7	C(a) → B(v)
#2	A(v) → B(a)	#8	C(v) → B(a)
#3	B(a) → A(v)	#9	A(a) → C(v)
#4	B(v) → A(a)	#10	A(v) → C(a)
#5	B(a) → C(v)	#11	C(a) → A(v)
#6	B(v) → C(a)	#12	C(v) → A(a)

This procedure ensured equal exposure to all sets and controlled for the difference of receiving one or the other set (auditory or visual) in the same order.

A "Data Record Sheet"* was developed to standardize data to be collected in the experiment. Each child was also asked, at the conclusion of the experience, to rate the material in terms of how well he liked it and why. All presentations were tape recorded to ensure a more accurate and thorough collection of data regarding the child's response to the stimulus.

The materials were field tested with 16 different pupils for a total of 20 times. Incomplete data on observation sheets and no recording of responses for five pupils narrowed the available data to 11 complete exposures of an intact auditory and visual response. Some pupils were given multiple exposure to the materials. This was done in cases where the student requested it, or as a reward bonus. All pupils used in this study were in regular elementary classes at Bailey School

*See Appendix for Data Record Sheet example.

in East Lansing, Michigan. These pupils were considered "auditory learners" as a result of conferences with staff and classroom teachers and a review of classroom performance and achievement scores.

Six staff members used the materials with the children in this study, and two independent observers were used four times to collect behavioral observation data.

A major focus on the field testing data was how well the auditory learners did with auditory stimuli in comparison to visual stimuli. The main questions for which data was collected by the examiners included the number of questions asked by the learner. This was used to assist in evaluating how well the program was organized and how clear the directions were. The questions asked by the learners dealt with specifics about the flashcard reader, whether they could repeat the sounds, and whether they could try another auditory set.

Examples of questions asked by subjects at the beginning of the experiment:

> "What are we going to do with this machine?"
> "What's this? I want to use it! What do you do?" (EFI machine)
> "Are we gonna use this?" (Flashcard reader, EFI)
> "What's this thing do?" (Play buttons)
> "What does this thing do?" (student record button)

Six of eleven subjects asked to do another auditory stimulus card when they finished one complete auditory and visual presentation. Their comments were:

> "Can't I do more?"
> "Do you have any more to do?"
> "Can we do some more?"
> "Are we going to have more, please?"

Only one treatment procedure was scheduled for each meeting with the child. The need to have a second and perhaps a third procedure available with data record sheets seems to have merit. Many examiners were unsure if they could continue, while two examiners used the auditory stimulus cards as a bonus or reward. Unfortunately, there was limited data available from these extended exposures.

In reference to Item 2 on the Data Record Sheet ("Was demo set used?") it was only suggested if the subject encountered difficulty in understanding the task. The demonstration set was only used three times and the results of its use are unclear. Examiners commented:

> "Reinaldo's responses mimicked the demo set."
> "The demonstration set may have helped to explain the required task."

It appears that the demonstration set should be used to clarify the task, and would also aid in familiarizing the subject with the machine and materials. This points out the need for more experimentation with the program procedure.

In response to Question #3 on the Data Record Sheet ("Did the learner seem interested in the task?") it was rather evident the learners were interested. This was substantiated by the responses of the examiners and the pupils. The audio format was favored by more children than the visual (7 of 11), but three children did indicate they liked to use pictures to tell stories. A sample of comments were as follows:

(David A.) "I like to listen to the sounds better than I like to look at the pictures."

(Dick) "It was easier to make up the sound story."

(Eric) "That stuff was 'neat.'"

(Independent observer) "David got into the task completely. Asked a lot of questions about the equipment. Extremely anxious to do more. His preference for auditory may be because he finds more allowances for creativity."

(Examiner) "Robert reacted slowly to the visual component of the Audio/Visual Tell-A-Story, but he really turned on to the audio component. The distractive, active behavior that was in evidence before ceased almost entirely. He asked for the sound cards of two additional sets and these were given as a bonus."

"This is the best reaction to anything he has had. He really enjoyed it."

(Examiner) "It just worked great."

(Examiner) "Marie didn't appear to be too excited about making up stories this way. She is a good story teller, but the pictures and sounds appeared to confine her too much. It took a long time to make up the story, and she was very hesitant about doing so."

Perhaps what is needed is more specific directions. An expanded "demonstration model" would assist in orienting the child to the equipment and to the specific task and steps they were to take. The subjects did work more easily and quickly when the "demo set" was used. This was particularly true with the younger children. A note of caution should be made for them to make up their own story after the demo is played. This procedure may assist the hesitant child and not confine them with their story telling.

There were several comments made by the examiners on the data record sheet that also need further investigation:

"I think on the auditory portion there may be too high a level task for some children (2nd graders) to coordinate. (Four sounds with story.)

"The visual picture stories were very concrete and very short."

> "Perhaps the use of two pictures or two sounds at first would be more beneficial gradually adding more as child can handle them."
>
> "Appeared to catch on readily, but then used only one sound or one picture. Was it because the directions were unclear or is the task of too high a level for him to sort out components and then put them back together?"
>
> "He/she couldn't remember all four sounds--at least to be able to be used usefully in a story."

These comments suggest a further examination of the materials to assess changes that could be made to alter their difficulty. For the younger child, it might be appropriate to build a story from a single sound. Or, two or three sounds rather than four.

The question (#6) dealing with the "time needed to THINK through story" did not reveal anything in this first study. A more precise timing observation by an observer and a need to tape record the entire session is evident. (Many examiners began their recording when the child began his story.) Perhaps a more specific check list to be completed by someone other than the examiner would assist this problem.

In response to the total number of words used in the story, the following data was reported:

In reviewing the total number of words used in both stimulus sets (auditory and visual), the visual sets stimulated more words than the auditory (7 times out of 13 exposures). The auditory sets produced more words in the stories twice, and four times they were equal in number of words.

The total time used to tell the story favored the auditory stimulus sets seven to five with one neutral (equal).

A look at averages of the thirteen complete samples appears to indicate that "auditory learners" may indeed be able to handle auditory stimulus equally as well as brief, concise visual stimulus. The average length of the auditory stimulus story was 47 words as compared with 51.5 words for the visual stimulus story. Story time averaged 63.7 seconds for the auditory stimulus stories and 39.5 seconds for the visual stimulus stories. Although more time was used for the auditory, it must be remembered that students were inserting the audio flashcards and listening. (Each sound took six seconds to present.)

This study, although limited, did reveal a great deal of information on design format and data collecting. Revisions of the study seem appropriate for further examination.

1) A more complete data record sheet is needed.
2) Tape recordings of each entire session are necessary.
3) A second person making behavioral observations would ensure and assist data collecting.

4) An expanded program moving from one stimulus up through four or five stimuli.
5) The demonstration set should be used in all sessions with new subjects.

SUMMARY

The Audio/Visual Tell-A-Story materials did elicit very favorable responses from the learners. Some of this is due to the gadgetry of the audio flashcard reader and some is due to the non-threatening aspects of the program. There were no right or wrong answers, although several pupils wanted to know what the specific sounds were in the auditory format.

Although the learners could deal rather quickly with the visual format sets in developing and telling a story, the stories did not seem as unique or creative as the stories developed by the auditory stimulus. Most learners asked to do more than one program at each meeting with the field tester. This type of activity did gain the attention of the learner for an average of 25-30 minutes.

Further studies are now needed in which verbal sounds (phrases/sentences) are used along with their visual counterpart or representation. Another area of investigation is perhaps using only one, two, or three sounds or pictures. A combination of a visual and auditory stimulus format should also be investigated. These ideas may assist subjects in making a smoother transition from one stimulus to the next and incorporate the sound or visual stimulus more easily.

Data should be recorded and reviewed by the project coordinator immediately following the exposure to ensure that data is collected and complete. There is a great deal of favorable data and general inclinations by staff members that favors another field testing of similar materials. There must also be samples of other types of auditory learners in special education programs, such as partially sighted, retarded, and children with learning disabilities.

DATA BY SUBJECTS

	AUDITORY STIMULUS		VISUAL STIMULUS	
	Elapsed Time	Total Words	Elapsed Time	Total Words
David A.	65	45	8	30
	60	38	42	44
Jay	180	43	30	43
	93	80	58	80
Jean	15	18	40	23
Allyson	30	21	15	25
Dick	35	48	25	39
Marie	40	20	20	25
Robert	20	40	45	40
Reinaldo	60	16	30	25
Paul	40	26	30	62
Ray	20	17	20	33
Rick	150	200	150	200

AVERAGES

Average Time - Auditory Story = 63.69 seconds

Average Length - Auditory Story = 47.08 words

Average Time - Visual Story = 39.46 seconds

Average Length - Visual Story = 51.46 words

REPORT OF REVISED MATERIAL

I. REVISIONS

The major changes adopted with the original A/V Tell A Story program dealt with presentation format and response record forms. It was felt that judging from the initial observations and comments made about the program that the following changes would facilitate presentation and implementation. No specific labels were used for the auditory or visual stimuli as with the original program. This was to keep it from being a threat situation and to aid the child in creating his or her own story.

Presenting four stimuli (auditory sounds/visual pictures) each time to make a story with was modified. A developmental sequence using first one stimulus (auditory/visual), then two stimuli, followed by three stimuli, to the original experimental format of four stimuli was followed. This progression from one up to four stimuli was to assist younger children and those older children who exhibited difficulty with multiple stimuli with their initial encounter with the program.

Response record forms were changed in order to get at specific questions and ideas. This involved items such as time for activity, stimuli favored, attention to task, difficulty with multiple stimuli, and the impact of gadgetry with this material. Data was solicited from the examiner presenting the material and the observer using specific response forms. (See attached copy in the Appendix.) Open ended statements and specific checklist statements relating to the activity and observed behavior were used.

A broader sampling was sought with this field test of the A/V Tell A Story. Pupils who were being served at a "learning disabilities" center and a state school for the blind and partially sighted were included with a sample population from an elementary school. All subjects were felt to be stronger auditory learners than visual learners due to a specific deficit or disability. Children ranged from 7 years to 10 years in age. A total of 19 subjects were used in this revision study.

II. FINDINGS AND IMPLICATIONS

Some initial confusion with the manner in which the material was to be presented and the data sought made it necessary to demonstrate the revised material. This pointed out the need for a demonstration tape using the material with a specific child. Responses could then be discussed in terms of what was recorded and what specific procedures were used, such as probe questions, to assist the subject.

The data record forms created some questions from the observers and examiners using the material. The open ended questions need further revision and examples to clarify what types of responses might be recorded by observers and/or examiners. Checklist statements did appear to facilitate the recording of specific behavior exhibited by the subject.

When the children were presented with one stimulus (auditory or visual) it was found that 13 of 19 would just identify it rather than tell a story. They would state simply that it's "a dog barking," "a doorbell ringing," or "dog's barking at someone," and "somebody's at the door." Additional probing by the examiner was usually necessary to obtain a story for the stimulus. The first real stories did not come until a child was presented with three stimuli (visual or auditory). Six children at the Stage II level were able to tell a story with only a single stimulus that was judged by the observer and examiner as creative and humorous. Stories of 15 subjects did become more involved when two or three pictures or sounds were used. The subjects would often focus on remembering the four sounds rather than putting them together to tell a story. Five of the subjects were able to incorporate the four auditory stimuli into a complete story.

The number of words used in the stories for one stimulus varied widely from two words "dog barking" up to twenty words or more such as "one day there was a dog who went out to play with some other dogs and he started barking at them." Many of the subjects could make up a story after they identified the sounds or pictures when probed by the examiner to make a story using all the stimuli.

TABLE ONE

AVERAGES DATA FOR NUMBER OF WORDS AND TIME SPENT WITH SINGLE AND MULTIPLE STIMULI

	AUDITORY STIMULUS		VISUAL STIMULUS	
	Average # of Words	Average Time	Average # of Words	Average Time
One Stimulus	6 words	25 sec.	9 words	16 sec.
range	2-17 words	4-45 sec.	2-20 words	4-35 sec.
Two Stimuli	6 words	39 sec.	10 words	29 sec.
range	4-23 words	7-70 sec.	3-28 words	7-95 sec.
Three Stimuli	11 words	56 sec.	11 words	35 sec.
range	7-38 words	18-90 sec.	6-45 words	10-80 sec.
Four Stimuli	14 words	65 sec.	40 words	38 sec.
range	7-95 words	20-120 sec.	11-124 words	20-50 sec.

Four sounds appears to be a higher cognitive level task than most children, and perhaps adults, can identify, retain, and incorporate into a coherent story. Seventeen of the 19 subjects were reported as having difficulty with multiple stimuli (three or more). Multiple auditory stimuli was found to be difficult for 14 of the 19 subjects. Ten of the 19 subjects had difficulty with multiple visual stimuli. Four simple pictures, such as were used with this study, did not appear as difficult for most children. The time involved in telling a visual stimuli story versus an auditory stimuli story did vary. This can be attributed to listening time, identification, and memory which is more involved with the auditory tasks.

III. RECOMMENDATIONS

The A/V Tell A Story study has served to illustrate several essentials in designing and using an auditory and visual material utilizing sounds and pictures. Classroom use and procedures are but a few of these findings. A material such as this one could be used in various ways by the teacher or consultant. The merits of such a program would perhaps favor fostering language development and creativity. It could also serve as an informal language assessment and memory test. There is a great deal of advantage in not having the child just identify correctly the sound or picture. The threat of right or wrong is lessened and perhaps children can be encouraged to tell about something, not just label it.

Skills involved with this task of auding (listening) include:

1. Directing and Maintaining Attention
2. Following Directions
3. Using Auditory Analysis
4. Using Mental Reorganization
5. Making Inferences and Drawing Conclusions

(Taylor, 1964)

It is felt that these are the major skills focused on with the A/V Tell A Story experiment. Items 1, 2, and 3 were completed by the subjects much easier than items 4 and 5. The subjects would often just identify (label) the sound or picture, but were unable to organize into a story. This was found more so with the auditory stimuli than the visual stimuli. One should determine which of the above skills are the primary objective for using the A/V Tell A Story.

Time involved in this activity for the subjects to complete a story from one stimulus up through four stimuli varied from 7 to 15 minutes. The average total time was 11 minutes, with time spent for one stimulus varying from 5 seconds to 30 seconds and 50 seconds to 120 seconds or more for four stimuli. The total time for this type of activity should not exceed 15 minutes unless it is being used in a small group activity.

TABLE TWO

TIME SUBJECT WAS INVOLVED WITH ACTIVITY

Location	Average Time for Activity
Bailey School	12 minutes 43 seconds
Waverly Learning Center	8 minutes 40 seconds
Michigan School for the Blind	11 minutes 7 seconds
Range =	5 minutes to 13 minutes

Subjects in the revised study used an average of four words for one stimulus and up to forty words for the four stimuli sets. There were exceptions to this, where one child used forty-four words for the one visual stimulus and thirty-seven words for the one auditory stimulus. The three stimulus sets were often the first complete and clearly related stories. See Appendix for samples of student responses.

If one is intending to use this type of material for assessment purposes, a tape recorder is a necessity to record responses. A specific check sheet for recording specific behaviors should also be used.

Use of both visual and auditory stimuli and progressing in a developmental sequence from one stimulus to four stimuli allows for children to have success. This could be altered for children judged by the teacher to need more than a single stimulus in order to solicit a response to telling a story. The use of four stimuli might also be eliminated for children having difficulty with three stimuli.

Standardization of an activity of this nature may assist the teacher or consultant in determining preference and strengths in relation to auditory and visual learning. The activity was well received by the subjects and they did report they liked it. Observers reported subjects were attentive to the task and all interacted when appropriate.

The use of one stimulus (auditory/visual) should perhaps be eliminated or modified. Seventeen of the 19 subjects simply labeled the stimuli instead of telling a story when presented with the visual or auditory stimuli.

Specific data to be collected is obtained more readily by a specific statement checklist for this type of activity. Time spent for each individual part of this type of activity does not appear significant. Sounds might be replaced with words for future studies of this type.

The use of the flashcard reader is not a necessity with this activity, but it does facilitate ease in presenting and packaging. Cassette tapes could be used in place of a flashcard reader. A major source which can be used for the sounds are the numerous sound effects records that are commercially available.

The reader should consult the Appendix for sample sheets that serve to illustrate the materials used in this study.

USOE/MSU
REGIONAL
INSTRUCTIONAL
MATERIALS
CENTER FOR
HANDICAPPED
CHILDREN
AND YOUTH

213 Erickson Hall · Michigan State University · East Lansing, Michigan 48823
Cooperating With State Departments of Education in Michigan-Indiana-Ohio

AUDIO/VISUAL TELL-A-STORY

User Guide

Description

This program consists of four audio flashcards and four sets of visual stimulus cards.

Each audio flashcard has four sounds recorded on it. This is known as the audio stimulus portion (a) of the Audio/Visual Tell-A-Story program. The visual stimulus portion (v) of the program consists of four pictures that depict the sound producing element found on each audio flashcard.

The purpose of these materials is to stimulate language and creative stories. Each student will be given an opportunity to create two separate stories. One story will be stimulated by the audio flashcard (Audio Tell-A-Story) and the other by the set of pictures (Visual Tell-A-Story).

The contents and label for each set are as follows:

Set A

Car horn
Train whistle
Train
Railroad crossing bell

Set B

Man snoring
Hammering
Jet plane
Woman laughing

Set C

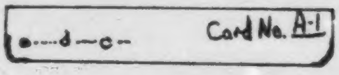
Sawing wood
Squeaky door
Telephone ringing
Pouring liquid

Demo set

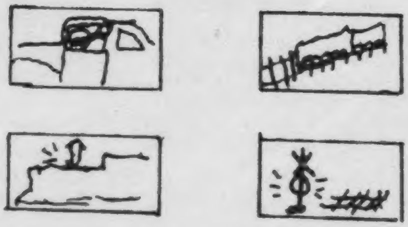
Dog barking
Motorcycle
Dishes breaking
Doorbell

A specific protocol for the use of these materials has been created in an attempt to control some of the major variables that can influence the collection of data about the effectiveness of the materials. It is important that you follow this protocol as exactly as possible.

Example:



Audio flashcard A
(modified card,
cut in half)



Visual stimulus cards (Set A)

Evaluator's Role and Procedure

In order to use the Audio/Visual Tell-A-Story program, please refer to the Data Record Sheet that accompanies the program. Item #1 "treatment procedure" tells you what stimulus sets you will use with the student.

For example:

1. Treatment procedure: Set A (x a __ v) Set B (__ a x v)

This tells us you will first use the "A" audio flashcard. Read the direction sheet for the Audio Tell-A-Story to the child. Please make sure you use a response recorder to record all of the child's responses to this program.

When the child has listened to the sounds on the "A" flashcard and completed his story using the sounds, read the directions aloud for the Visual Tell-A-Story (Set B). Please make a note of the order the child places the visual stimulus cards.

Each time you use a set from the Audio/Visual Tell-A-Story program, complete items #1,2,3, and 4 on the Data Record Sheet. If you present a "visual" stimulus set (v) first, you will be using an "auditory" stimulus set (a) second. If you present an "auditory" stimulus set (a) first, you will be using a "visual" stimulus set (v) second. Line #1 on the Data Record Sheet tells you what specific sets you will use and the order they are to be used. Please do not alter this presentation order.

Any time a child does not understand what is asked of him, use the Demo Set and the stories included with this set.

- --Each child will experience both materials during a single instructional setting.
- --Present the two materials in the order that is required.
- --You will be tape recording (cassette) entire interaction between you and the learner. Begin the recording just prior to reading the instructions to the learner. Continue the recording until the learner is dismissed.

--Keep idle talk to a minimum.

--Read the instructions to the learner exactly as written.

--If the learner does not understand the directions, use the demonstration set to model what is expected. (A script accompanies the demonstration set.)

--If the learner wants to use a sound (or picture) more than once in his story, it is acceptable. However, do not suggest this to the learner. Allow this only if the learner requests it.

--Complete the Data Record Sheet immediately after the learner is dismissed. Complete the background information section and the first four items. Do not complete the items below the dotted line (items 5-8).

--Fill in the "Student Name," "School," and "Date" on the cassette after the learner is dismissed. Return the cassette with the Data Record Sheet.

Jim Fleming
S. Joseph Levine
January, 1974

AUDIO/VISUAL TELL-A-STORY

DATA RECORD SHEET

Pupil Name: ______________________________ Stage: ________________

Observer: ______________________________ School: ________________

Date: _______________ Time: ________________

1. Treatment procedure: Set ____ (__a __v) —— Set ____ (__a __v)

2. Was demo set used? ____ Yes ____ No

	Visual Format					Audio Format				
	Very		?		No	Very		?		No
3. Did learner seem interested in the task?	5	4	3	2	1	5	4	3	2	1

4. Comments:

(DO NOT COMPLETE REMAINDER OF FORM)

5. Number of questions asked by learner. ________
(Transcribe questions in this space.)

	Visual Format	Audio Format
6. Time needed to THINK through story.	____ sec.	____ sec.
7. Time used to TELL story.	____ sec.	____ sec.
8. Total number of words used in story.	____	____

PROCEDURE

DEMO SET

If the child does not understand the task of creating a story from either the audio or visual stimulus, use the DEMO SET to provide a "dry run." Use the Audio DEMO SET for the child who is having problems with the Audio Tell-A-Story, and the Visual DEMO SET for the child who is having problems with the Visual Tell-A-Story.

Here's what you do:

--Insert and play the sounds from the DEMO Audio card...

OR

Display the pictures from the DEMO SET of Visual cards...

--Then tell the following story:

"THIS IS A STORY ABOUT A LADY WHO IS WASHING DISHES IN THE KITCHEN. WHILE SHE IS IN THE KITCHEN WASHING THE DISHES SHE HEARS A MOTORCYCLE* IN HER FRONT YARD. HER DOG HEARS THE MOTORCYCLE* TOO AND BEGINS TO BARK.* JUST THEN THE FRONT DOORBELL RINGS.* SHE STARTS TO RUN TO ANSWER IT AND SHE DROPS SOME DISHES*AND THEY BREAK. THIS SCARES THE DOG AND HE BARKS* AGAIN."

---

*at these points say the word and play the parallel sound (Audio Tell-A-Story) or point to the parallel picture (Visual Tell-A-Story).

AUDIO TELL-A-STORY

(Read the following to the student to introduce the Audio Tell-A-Story.)

Today we will be making up some stories. Your stories will use some sounds. First, listen to the sounds.

(At this point, help the learner listen to the sound by pushing the four buttons individually and not in order.)

You will be making up a story to go with the sounds. You can use the sounds in any order to help you with your story. When you are telling your story, push the button for the sound that goes with that part of the story. Any story is okay. Go ahead and make up your story. When you are ready, tell me your story with the sounds.

VISUAL TELL-A-STORY

(Read the following to the student to introduce the Visual Tell-A-Story.)

Today we will be making up some stories. Your stories will use some pictures. First, look at these pictures.

(Spread the pictures on the desk top in front of the child. Note the numbers on the back of each picture. Lay the pictures out in the sequence of these numbers. Left to right as the child sees them.)

You will be making up a story to go with these pictures. You can use the pictures in any order to help you with your story. When you are telling your story, point to the picture that goes with that part of the story. Any story is okay. Go ahead and make up your story. When you are ready, tell me your story with the pictures.

REVISED COPY

A/V TELL A STORY

The following modifications are to be made with the A/V Tell A Story experimental series. These changes are a result of the initial field test findings and recommendations made by staff members.

1. Each subject will be presented with one stimulus (visual or verbal) first. They will be asked to make a story with each. The next will be two pictures to make up a story followed by two sounds. This will be continued with three sounds and three pictures.

2. Two new response forms are to be used during the session by the observer and experimenter. When the session is completed, it is suggested that the experimenter and observer complete their data forms separately.

3. Field tests will be made using these changes with pupils at the Waverly Learning Center, Michigan School for the Blind, and Bailey School. Five pupils from each site will be needed for this final study.

AUDIO/VISUAL TELL A STORY
EXAMINER'S RECORD SHEET

Pupil's Name ____________________ Stage Learner ______________
Examiner ____________________ School ______________
Observer ____________________ Time ________ Date ________

1st Present visual stimulus card "Dog Barking."
"Tell me a story about this picture."

COMMENT

2nd Present audio stimulus "Doorbell."
"Tell me a story about this sound."

COMMENT

3rd Present two visual stimuli, "Hammering" and "Sawing Wood."
"Tell me a story about these pictures."

COMMENT

4th Present two audio stimuli, "Pouring Liquid" and "Squeaky Door."
"Tell me a story about these sounds."

COMMENT

5th Present three visual stimuli, "Telephone," "Motorcycle," and "Man Snoring." "Tell me a story about these pictures."

COMMENT

6th Present three audio stimuli, "Dog Barking," "Dishes Breaking," and "Doorbell." "Tell me a story about these sounds."

COMMENT

7th Present the following treatment procedures:
Set ___ (__a __v) and Set ___ (__a __v)

COMMENT

8th Have subject rate the activity: Rating ________________

COMMENT

SUBJECT DID: (Check the appropriate statements.) (Complete at end of activity.)

____ respond easily to stimuli
____ equally well with visual and auditory stimuli
____ favor auditory stimuli
____ favor visual stimuli
____ attend to the task
____ have difficulty with multiple--three or more visual stimuli
____ have difficulty with multiple--three or more auditory stimuli

AUDIO/VISUAL TELL A STORY
OBSERVER'S RECORD SHEET

Pupil's Name ____________________
Observer ____________________
Date __________

Examiner ____________________
School ____________________
Time __________

Behavioral Observations

Clinical Impressions

Total Time for Activity __________

Time needed for telling stories:

treatment using one picture __________
treatment using one sound __________

treatment using two pictures __________
treatment using two sounds __________

treatment using three pictures __________
treatment using three sounds __________

treatment using four pictures __________
treatment using four sounds __________

Did learner seem interested in the task?

Visual Formats						Audio Formats				
Very		?		No		Very		?		No
5	4	3	2	1		5	4	3	2	1

1. The sequential order of one stimuli progressing to four was

2. This form is

3. The activity did / did not outweigh the learning task for the learner

4. Gadgetry played a very

"FAVORITE FOIBLES"

Nancy Carlson
Cindy Lafkas

OVERVIEW

This two-part instructional material is designed to aid children in identifying consistencies in imaginary characters' thinking that lead to inappropriate behavior; and through a teacher-led discussion, compare and contrast these consistencies with their own personal experiences.

Short stories featuring an imaginary character with a personality foible are presented on a cassette tape. Interspersed within the story content are questions to which the listeners are to respond freely. The tape then continues with other children's responses to the question (provided as feedback) and then the story resumes.

OBJECTIVES

1. Given a personality trait in an imaginary character, the child will be able to identify the same trait in themselves through a teacher-led discussion.

2. Given an identified foible, a child will be able to pinpoint consistencies in the characters' thinking that lead to inappropriate behavior and compare and contrast those consistencies with his own personal experiences.

PROCEDURE

1. Introduce the story.

> "This is a story about a boy who's always forgetting. You'll be asked some questions during the story so listen carefully to what Fenton is forgetting."

2. Play the tape.

   Stop the tape after each question. "What could Fenton do?" "What would you do?" Let the children respond freely. Restart the tape. Other children's voices will come on the tape with their answers and then the story continues.

3. Discussion.

   Following the story, you may wish to discuss:

   --How do you feel when you forget something?
   --What do you do when you forget?
   --What could you do if no one could help you?

   These are only suggestions. Let the children determine the content and the length of the discussion. With repeated exposure to this type of tape, it is hoped that there will be natural, not forced, internalization.

EVALUATION

A record is to be kept, by the teacher or an observer, of the child's responses (see Observation Form). After a child-material interaction an optional Summary Statement may be used to examine clusters or types of responses which were identified after the field-testing of this material. A graphic representation of the types of responses given by the child provided an interesting description of his behavior or his anticipated behavior in similar situations. There are no right or wrong responses, but types of responses which cluster in one area may add insight to the teacher's understanding of the child.

FIELD-TEST DATA

The original scripts were taped without the children's feedback responses. These original tapes were then played for a group of five Stage IIa* children and their responses recorded on a master tape. Following this taping session, the stimulus (story-content) tape and responses tape were spliced together.

This completed version was then field-tested with 15 other children (Stages I and IIa) in small groups from regular and special classrooms with learning disabled, visually impaired, and other advantaged auditory learners.

The total time for the material interaction and a discussion is about 10 minutes. It is important to keep the session short and to remain neutral to the children's responses in order to create a trusting atmosphere which will help get children to respond freely.

GENERAL COMMENTS

1. The characters have different levels of abstract qualities, from very concrete to more abstract, to allow for learning at different stages.

2. The children know that any response is welcome and acceptable. The listeners respond to a question and then some other children respond on the tape. The children enjoyed hearing other responses ("I said that, too." "That's a good idea."). It seemed to assure them that many alternatives were desirable and the number of different responses increased after the first taped responses were heard.

3. Children can explore many possibilities. The taped children's voices helped here also.

4. Through the fictional characters the children feel safe in responding to Fenton or Woody without feeling threatened ("What could Fenton do?").

5. The children feel free to respond personally if they are ready to. ("What would you do?").

6. The discussion offers another opportunity for expression of personal similarities to the characters, but this is intended to be voluntary on the part of the children. No child should be reprimanded, corrected, or forced to participate.

A script, Observation Form of sample responses, and a Summary Statement Form are included on the following pages.

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*"Stages" refer to stages of development that have been defined by the project staff. A detailed examination of the Learner Classification System and the developmental stages can be found in *Bridging the Gap Between Materials and Learners: Maximizing Auditory Instruction*, Auditory Learning Monograph Series, Consortium on Auditory Learning Materials for the Handicapped, July 1974. Briefly, the stages are characterized as follows:

Stage I - characterized by: egocentric, isolated thoughts, necessity for proximity to learning situation, and individuality of responses.

Stage IIa - characterized by: inconsistent and unpredictable cognitive behaviors, necessity for concrete objects, selectivity in generalizing, and affinity for the obvious.

Stage IIb - characterized by: ability to solve problems if accompanied by concrete objects and sequenced events, integration of self-concept, and selectivity in generalizing.

Stage III - characterized by: ability to solve verbal problems logically, exaggerated concern for self, and emphasizes group relationships.

FENTON FORGETFUL

Fenton Forgetful was always forgetting. He hardly ever did anything else.

One day Fenton was walking to school and he said, "I forgot my lunch."

"What could Fenton do?

When Fenton got to school he sat down at his desk and said, "I forgot my reading book!"

What could Fenton do?

This was Fenton's week for taking care of the goldfish in the room. Some of Fenton's friends were looking at the goldfish and then he remembered, "Oh, oh . . . I forgot to feed the goldfish."

What would you do?

Everyone was excited about going to see the fire department. Fenton's friend asked, "Did your mom say you could go?" Fenton looked sad and said, "I forgot to ask her."

What would you do?

When school was over Fenton stopped to play with some friends. When he got home his mother said, "You're late for dinner."

What do you think Fenton said?

What would you say?

OBSERVATION FORM

"Fenton Forgetful"

Student SAMPLE RESPONSES **Observer** Cindy Lafkas **Date** May 1974

Directions: *After each key word from the story below (Lunch, Goldfish, etc.) record child's verbal response.*

1. LUNCH

Response: "Well, he could go to a friend's house for lunch." "Go back and get it." "Tell the lunch room supervisor." "He couldn't eat." "Go home for lunch."

2. BOOK

Response: "Tell the teacher." "Run home and get it." "I wouldn't do any work, jus play all day." "Ask the teacher if he could have another book." "Share with someone

3. GOLDFISH

Response: "Just feed 'em cuz that's the only thing to do." "I'd go tell my mom." "I'd wait till the kids get out of the way and then feed them, cuz if they bumped you you'd get too much food in there and that could kill them."

4. ASK MOM

Response: "I'd go anyway cuz it's part of school." "I'd go to the office and call. "I'd just tell her when I got home. She wouldn't care." "Go home and ask her."

5. LATE

Response: "He forgot--I'd say I forgot and tell my dad I'll try better next time." "I usually tell my mom so I just tell her she must have forgotten I was going."

SUMMARY STATEMENT

Student ______________ Observer ______________ Date ________

Directions: After material-child interaction, you may wish to categorize his responses. This may be a helpful addition to information you may already have, but is strictly optional.

CATEGORY	FREQUENCY COUNT OF TYPES OF RESPONSES
1. DEPENDENCY Ex: "Tell my dad to fix it." "Wake mom up and tell her to fix it." "Tell the teacher." "Call my mom on the phone."	
2. SELF-RELIANCE Ex: "Go back and get lunch." "Use my key, open the door, and play with our cat." "I'd fix it myself." "Feed the goldfish."	
3. REMOVING SELF FROM SITUATION Ex: "I wouldn't go to school." "I'd go over to somebody else's house." "Get another desk." "I wouldn't do anything."	
4. RECOGNITION OF SELF IN SIMILAR SITUATION Ex: "I wish on a wishbone." "I wish a lot." "I do that, too."	
5. UNUSUAL SOLUTION Ex: "Use stilts" "I'd go on trip anyway, cause it's part of school."	
6. REASONABLE SOLUTION Ex: "Take the test anyway and do your best." "Eat lots of good food and then you'll get taller." "Look at the papers or books in the desk to see if they have your name."	
7. RESPONSIBILITY FOR OTHERS Ex: "I'd ask them to line up so we could go."	

GENERAL IMPRESSIONS: You may want to note extraordinary responses and summarize the clusters of types of responses given.

"UNDERSTANDING OURSELVES AND OTHERS"

Marsha C. Smith

Introduction

A need was identified for materials in the affective domain reaching children at all age levels. This material was designed with pre-schoolers (ages 3-6) in mind for an experience in learning to cope with stressful everyday situations. It was designed for use in a group situation or on an individual basis with the normally developing child as well as the child identified as having difficulties in coping.

Design

The material consists of three parts:

1) The first part stresses the child's awareness of his own feelings and his expression of them through actions. There are 12 stimulus situations presented. (Example: "You want to talk to your mother. Right now! But she is on the phone. What will you do?")
2) The second part deals with the child's awareness of how his own actions affect the feelings of others in his immediate environment. There are 12 stimulus situations presented. (Example: "You are playing outside with your friends. You throw sand in your friends face. How does he feel?")
3) The third part integrates parts one and two and, in addition, attempts to make the child aware that he has several options from which to choose in any given situation. There are four stimulus stories presented in part three.

The material contains:
- 3 audiotape cassettes
- 4 puppets with character hats (puppets are neuter to provide for maximum flexibility and creativity)
- 1 teacher's guide

Each part consists of an auditorally presented stimulus situation to be followed by discussion and then puppet play relating to that situation. The number, order, and length of the stimulus is left to the teacher's discretion.

Use

This material was designed to be used as either a unit or in individual sessions as the teacher wishes. If used as a teaching unit, the teacher still has the option of how long the unit will take and how many of the situations will be presented in any given session.

Much depends on the needs and capabilities of the children and the material has purposely been designed for maximum flexibility. Although some guidelines regarding presentation method, responses, puppet play and follow-up activities have been provided, much of the use is left up to the teacher. These guidelines as well as the tapescript can be found in Appendix A.

Field-Testing

The material was field-tested at three different sites. Three teacher/evaluators were asked to use the material as per set guidelines and as they felt it would be best for their particular children.

A total of 22 children were exposed to the material either individually or in small groups. Ages ranged from 3½ - 9 years.

The teacher evaluation generally related to material/child interaction, attentiveness, potential of material from the teacher's viewpoint, and recommendations for revision. Due to the many variables in presentation by the teachers involved as well as the lack of observers, the "Evaluation Form" did not prove to be useful. In the small group situation, even with a tape recording of the session, it was impossible to monitor verbal and physical behaviors of more than one child at a time. Timing and location of field-test sessions did not permit this.

In summary, it appears that this type of material is stimulating for both discussion and puppet play with intermediate (age 8-10) aged children as well as on a one-to-one basis with pre-schoolers. Specific changes or modifications in format as determined by field-testing are listed below.

1. An audiotape cassette presentation for preschoolers is probably not appropriate due to the need at age 3 and 4 for repetition and interpersonal contact.
2. At the preschool level it seems to be more appropriate for the material to be used on a one-to-one basis than in small groups.
3. The material may be most useful with children already identified as unable to cope with everyday situations.
4. If used in a group situation, the material seems most effective with some definite structuring of the puppet play. It may be more useful to present each situation in two sessions -- one discussion and one puppet play.
5. With some revision of situations (situations more suitable for 9 and 10 year olds), this material will be useful with older children (4th graders). Acting out the situation was especially appropriate with these older children. If used exclusively with children of this age, a separate teacher's guide is recommended.

6. With older children the verbal discussion was very *on* target. The situations presented seemed to be a good stimulus for discussion and the children needed no prodding to enter into appropriate discussion.

7. Younger children had difficulty staying "on target" regarding the situation presented.

8. With older students, the material seemed to stimulate a desire to do creative dramatics in working out problems.

9. Puppet play is difficult for the pre-schooler if he's never had any *structured* experience using puppets previously. Here again, a one-to-one approach may be more appropriate *at first*, working into group situations as the children become more aware of what is expected of them.

10. *Some* "free" puppet play is necessary for pre-schoolers before trying to use the puppets in a teaching situation.

In conclusion, it is apparent that specific changes in format (i.e., deletion of cassette tape) and in the teacher's guide (i.e., structure, group size, etc.) should be made. Under specific conditions, the situations and puppet play do seem to promote meaningful discussion. As a language development and expressive language stimulation device as well as a "child integrater" this material appears adequate.

APPENDIX A

TEACHER'S GUIDE

"Understanding Ourselves and Others"

The enclosed set of materials has been developed to help the teacher of preschool children work with them in dealing with their own feelings and emotions, in everyday situations. The Series is organized into three specific sections, each one dealing with a more complex awareness of self.

Part I centers around the concrete awareness of the preschool child in dealing with feelings through actions. For this reason, the question put to the child after each situation presented is "What will you do?" From his response to such a situation the teacher will be able to ascertain how the child is dealing with everyday stressful situations and his own security in dealing with them.

Part II is designed to surface an awareness of others to the child. After a child can deal appropriately with the self-centered approach of Part I ("What will YOU do?"), Part II moves further and asks "When I do this, how will it affect those around me?" By making him more acutely aware of the effect his actions will have on the feelings of those important individuals around him, he should have increased awareness of the importance of his actions. The question then, in each situation, is "How does _______ (the other person) feel?"

Part III deals most specifically with the importance of combining the child's awareness of a situation, with the understanding that he has many options from which to choose his actions.

Throughout Part III the teacher is urged to stress the fact that in any given situation there is a choice of ways for the child to handle it.

Use:

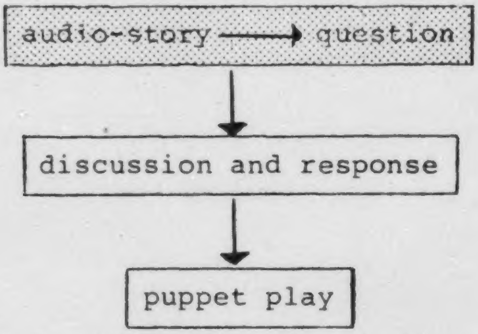
This material has been designed for use on an individual or small group basis with regular preschoolers and/or specific children who are having difficulty expressing themselves and appropriately dealing with stress.

Materials included:

- --Three audio-tapes (one for each specific part of the program).
- --Four puppets and their character hats (puppets are neuter to provide for maximum flexibility and creativity).
- --One teacher's guide.

Presentation Method:

The general presentation method for each segment of the three parts is similar and is diagramatically shown below.



The teacher will notice that for Parts I and II there are 12 situations presented. These may be used singly or in groups of two or three at one sitting depending on the children involved. The specific situations may be used in any sequence at the teacher's discretion.

Helpful Hints

1. Let the children respond as spontaneously as possible to the question.

2. Notice that the question is not a "should situation" and no stigma should be placed on the child's answer. Helping him work out more appropriate solutions should be a second part of the discussion and a focus of the puppet play.

3. Try to emphasize that for each of the situations there are several different ways a person might respond or feel. Emphasize the concept that there is often more than one acceptable solution.

4. Discussion is an integral part of this program. Try to reinforce important ideas through the discussion. Specific discussion hints will be listed within each part guide.

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

PART I - "What Will You Do?"

OBJECTIVES

1. To learn to express feelings about simple but possibly stressful, everyday situations.
2. To realize that there are several appropriate ways to deal with any given situation.
3. Learning to cope with known stressful situations.

SITUATIONS PRESENTED

1. Dougie spills juice on your clothes.

   What will you do?

2. John wants the toy you have so he grabs it.

   What do you do?

3. Susan is touching your clothes and your hair. You don't want her to.

   What do you do?

4. You want to talk to your mother. Right now! But she is on the phone.

   What will you do?

5. Your mother is busy in the basement. You want some juice. You are not allowed to get into the refrigerator by yourself.

   What will you do?

6. Your mommy is playing with you but then your baby sister cries and your mommy has to go feed her.

   What will you do?

7. Your mommy and daddy put you to bed. They read you a story and sing to you. But you are still not tired.

   What will you do?

8. You want to play with your blocks but they are up to high for you to reach.

   What will you do?

9. Your mommy and daddy are watching the news on television. You want to talk to them. They ask you to please wait until the news is over.

   What will you do?

10. You are playing in the yard with your friends. Then your friends go into the street to play.

    What do you do?

11. You find a dime on the floor. It is your Daddy's.

    What do you do?

12. John messed up your blocks by accident.

    What will you do?

DISCUSSION HINTS

1. After children have responded with what they will do, encourage further thought via--

   --What else could you do?

   --What will you do if _______ doesn't work

   --What do you think will happen if you did _______?

2. Do not impose any feelings of right and wrong on the answers given.

3. Probes such as "What might be a better way to handle that?" may be necessary.

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

9. The children are calling your friend nasty names. Daddy said that wasn't nice.

   How does your friend feel?

10. Your mom asks you to throw your trash in the wastebasket. You throw it on the floor.

    How does your mom feel?

11. Your teacher asks all the children to sit quietly to listen. You are very wiggly and call out.

    How does that make the teacher feel?

12. Your mother asks you to pick up the toys in your room and put them away. You do.

    How does your mother feel?

DISCUSSION HINTS

1. After illiciting responses to how the other person feels, ask how the child feels as well. (i.e. "How do you feel when _______ feels that way?")

2. Try to assist children in becoming aware of the fact that their own behavior directly affects the feelings of others.

3. Help the children discover that people may react differently in similar situations.

4. After the discussion is well under way or nearing completion have the children act out or facially display feelings they have mentioned (happy, sad, angry, confused, wishful, pleased, proud, disappointed, nasty).

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

PART III

Part III is a culmination section in which 3 specific ideas are brought out: 1) Feelings, the childs as well as others and the actions involved, 2) Alternatives and dealing with similar situations in the future, and 3) Learning to express oneself regarding such situations.

OBJECTIVES

1. Learning that options are available in a given situation.
2. Learning to cope with unknown or stressful situations appropriately.

It is suggested that only 1 situation be presented to a child at each session.

SITUATIONS PRESENTED

Narrative I

You live in a little brick house and you have a nice backyard to play in. In the backyard there are good trees for climbing, there are swings tied from the trees, too. On one tree there is a tire swing. You have a sliding board in the yard, too and a new sandbox. You like to play in your yard. Sometimes you play by yourself outside and sometimes you play with other children who are just about your same size and age. That's fun, too.

One day, when you go outside to play by yourself, you see that there are 3 boys climbing in your trees and one has dragged your sliding board over by the trees. The boys are lots bigger than you are and older, too.

What would you do?

DISCUSSION HINTS for Narrative I

1. Let children spontaneously come up with answers to "What would you do?" Notice that the question is would and not should. If needed, bring out the should element to help the children understand not all responses are appropriate.

2. Some typical responses are below. The teacher might try to draw further responses with "why" or "what could you say, etc.

    --I'd cry.

    --I'd go play with them (the boys).

    --I'd tell them to go away; play somewhere else.

    --I'd tell my mother to tell them to go away.

    --I'd go inside to play.

    --I'd wait for them to go away.

    If done in a group, it can be brought out that not all the children will do the same thing and that there is more than one way to handle the situation.

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

Narrative II

You are going to the grocery store with your mother. Your mother asks you to stay close to her while she does the shopping. She has many things to buy. She also reminds you not to touch the cans on the shelves. You like to go shopping with your mother. It is fun to go up and down the aisles and to look at all the things to eat. And other things, too.

While your mother is busy looking at things and deciding which things to buy you begin to take some cans of soup from the shelf. All of a sudden all of the cans come tumbling down on the floor. They make a great big crashing sound and everyone looks around to see what has happened.

What will you do?

DISCUSSION HINTS for Narrative II

1. Expect some answers on the order of:

   --I ran to my mother.

   --I began to cry.

   --I ran away so they wouldn't know who did it.

   --I picked up the cans and put them back on the shelf.

2. Probe somewhat to get the child to think a little bit about WHY he chose to do what he did.

3. Get some thoughts from the child on:

   --What did your mother think about that?

   --What did the other people in the store think when all the cans fell?

   --What did the person who runs the store think of all the cans on the floor?

   --How did you feel when all the cans came down?

   --What will you do next time something like that happens?

   --How can you avoid having something like that happen again?

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

Narrative III

It is a very pretty day. The sun is shining and it is nice and warm. I guess it is springtime and you are so happy to be able to go outside to play. While you are playing in the yard a lady goes by your house with her arms full of packages. There are so many that she can hardly carry them all. You wonder what is in them. All of a sudden one of the packages drops on the ground. You watch the lady. She cannot get the package that dropped without dropping all the others. She is having a very hard time trying to pick up the package that dropped.

What will you do?

DISCUSSION HINTS for Narrative III

1. See how many different responses you can illicit from the children if you are doing this in a group situation.
2. Again, probe for the WHY aspect of the childrens' responses. Getting them to express the 'why' may make them more sure of their original response and encourage them to respond similarly (or in an improved fashion) another time.
3. Ask the children:

    --What did the lady think when you picked up the package?

    --Did you know yet what was in it?

    --Would you do the same thing again sometime?

    --What did the lady say to you?

    --What did you say to the lady?

    --How do you think the lady felt when the package fell down and she couldn't get it by herself?

    --Did you tell your mother about what happened? What did she think about it?

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

Narrative IV

Since you like to play outside so much, you and your friends play outside nearly everyday - except when it is raining. Today is not rainy and you and your friends are having a wonderful time in the backyard. You usually play in your yard because it is pretty big and your mother and father like you to stay close so they will know where you are and can see you. You are very careful to stay away from the street and your mother and father are proud of you.

After you and your friends have been playing awhile, your friends want to go across the street and way down the block to someone else's yard. You tell them that you are not allowed to go across the street and down the block. They tell you it is O.K. and that you should come and they go across the street. When they get to the other side they call to you. They say, "Come on across. Come and play with us. Your mother won't mind. Come with us."

What will you do?

DISCUSSION HINTS for Narrative IV

1. Since the point of view of the parents is clearly defined for the child in the story, this narrative will bring to surface the child's ability to deal with peer pressure and to stick with his own convictions. Temptations such as this are quite common in childhood. After the child has given his response, try to illicit other responses from him that he might have chosen.

2. Discuss WHY one child in the group may have responded differently from another. Be open minded about the children's response remembering that they have different types of parents to whom they will have to ultimately answer. However, do try to remind them about the parents mentioned in the story.

3. Bring out the feelings of others as they relate to his decision:

   --How will your parents feel about what you did?

   --How will the other children feel about what you did?

   --How did you feel after you decided what to do?

4. If the child's decision was to NOT cross the street, you might find out what he decided to do when he was in the yard all by himself.

5. Help the child to think of some appropriate ways to deal with coping with such situations in the future:

    --Tell your parents about what happened and ask them to talk to your friends about what you can and cannot do.

    --Tell your friends you can only play in your yard or next door and leave it at that.

Puppet Play - specific hints for puppet play:

a. Puppets are neuter. Let the children who are to play out the situation choose the puppet they want and attach a character hat to it to suit the situation.

b. Keep the children "on target" regarding the situation. At first it may be necessary to do some leading, gradually backing out.

c. Watch carefully to see if the child's response during the puppet play differs in any way from his original response.

d. A two - four minute puppet play is considered sufficient.

e. After the puppets have reenacted the recorded situation, the teacher might ask the puppet character how he felt in that situation. In this way, the puppets will be taking part in a discussion.

Suggested Follow-up Activities

a. Role-playing (ages 3 1/2 - 6)

The extent of the role playing should depend on the abilities and age of the children. This activity is especially useful with the "What will you do?" questions. The teacher may decide to choose the parts for the children or let them select the part - again depending on the needs and abilities of individual children.

Watch the children to see if their responses differ from their original comments in regards to the specific situation.

b. Drawing (ages 5 and 6)

Have the children draw pictures illustrating the specific situation. The teacher may sometimes elect to tell the children to "draw a picture of yourself in this situation," or simply "draw a picture about _______."

c. Tell-A-Story (4 1/2 - 6)

For the child who can verbally transfer from the given situation to another similar one, have him "tell a story about _______" (someone who is sad, someone who is frightened, someone who is proud, etc.) From a 3 or 4 sentence story the teacher may wish to add discussion and then puppet play to these original situations.

EVALUATION FORM

"Understanding Ourselves and Others"

Names	Length of Interaction	Spontaneous + 0 -	Involvement + 0 -	Relates to Stimulus + 0 -	Comments	Teacher Reactio re: grow + 0 -

*One form for each session where these materials are used.

DECISION-MAKING

"WHAT DO YOU THINK..."

Dave Broski
Nancy Carlson

OVERVIEW

This three-unit instructional program is designed to build decision-making skills in the affective domain. More specifically, its purpose is to stimulate critical thinking behaviors free from preconceived sets of learned biases. It is designed for an audience of elementary students operating at a Stage IIb* or Stage III* level. The setting is small group with a discussion leader.

This is an auditory material. Short hypothetical stimulus situations have been pre-recorded on cassette tapes. An accompanying set of audio flashcards provides optional responses/solutions to the problem situations presented on the tape. A group discussion follows. A suggested evaluation scheme and discussion guide are provided. A tape script and accompanying response/solution options for each unit are provided as an Appendix to this paper.

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*"Stages" refer to stages of development that have been defined by the project staff. A detailed examination of the Learner Classification System and the developmental stages can be found in Bridging the Gap Between Materials and Learners: Maximizing Auditory Instruction, Auditory Learning Monograph Series, Consortium on Auditory Learning Materials for the Handicapped, July 1974. Briefly, the stages are characterized as follows:

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Stage IIa - characterized by: inconsistent and unpredictable cognitive behaviors, necessity for concrete objects, selectivity in generalizing, and affinity for the obvious.

Stage IIb - characterized by: ability to solve problems if accompanied by concrete objects and sequenced events, integration of self-concept, and selectivity in generalizing.

Stage III - characterized by: ability to solve verbal problems logically, exaggerated concern for self, and emphasizes group relationships.

OBJECTIVE

For students to critically evaluate a set of solutions to a hypothetical situation/problem and through that evaluation to select those solutions least laden with commonly held biases/ prejudices.

PROCEDURE FOR USE

1. First stimulus situation is presented on cassette to students.

2. Four solutions/conclusions are presented on the audio flashcard reader.

3. A solution/conclusion is selected by each student.

4. Students provide a rationale for selection of a particular solution/conclusion.

5. A discussion of each solution is done as a group. There are no right or wrong answers.

EVALUATION SCHEME

Although it is emphasized to the students that no answers are right or wrong, some answers have been structured to be less bias-laden than others. They are arranged in a hierarchy for evaluation so that selection of answers at one end indicates an open, bias-free attitude. Selection of answers at the other end indicates a less than open attitude. For example, if four solutions are arranged on a continuum like this:

2 3 4 1

selection of numbers 2 or 3 might be structured to indicate an open attitude; selection of 4 or 1, less open. It is hoped that over several such administrations of these situations, growth will be seen through a move from right to left along the continuum. Maintenance of responses at the left of the continuum further indicates success.

FIELD TEST DATA

This material has been tested with 17 students in groups of two or three per session. Learning disabled, visually handicapped, and students from regular classrooms were involved during the field-testing at three different schools. Fifteen of those pupils involved were assessed to be operating at Stage IIb. Two of those involved during the field-test phase were assessed to be operating at Stage III. Total time for the experience ranged from 15 to 45 minutes.

The following general comments are based on this testing of the material:

1. The material successfully stimulates discussions of the situations and available options.

2. It is imperative that the discussion leader be open in attitude.

3. Kids know the "right" answers. It is important, therefore, that the discussion leader probe by asking, "What would you really do?"

4. Because the taped situation is brief, it can be played back to facilitate the discussion.

5. Because the responses/solutions are recorded on flashcards, they, too, are easily retrieved.

6. Students appear to enjoy the opportunity to discuss their feelings. They are not threatened in this situation by right or wrong answers. Furthermore, they seem complimented

when an adult asks their opinion.

7. Using the suggested evaluation scheme, growth has been observed by those students participating in the field-testing of this material.

DISCUSSION GUIDE

This material depends heavily upon the abilities of the discussion leader to draw out the beliefs and feelings of the students participating in the experience. It is emphasized that no answer is right or wrong; although it is hoped that logical decision-making skills will be developed over time through a series of such interactions. The material is designed to stimulate discussion of why a specific alternative was chosen. Through an open discussion of the student's rationale for selection of that alternative, it is the discussion leader's obligation to probe for rationales based upon emotion or prejudice rather than logic.

It is important, therefore, to probe:

1. What do you really think happened? Or, what would you really do in this situation?

2. Why? What reason prompts your decision?

3. What in your past experience indicates that your decision is a good one?

4. Have you been in a situation like this before? Can you think of other situations like this one?

5. What other answers or solutions could you think of in this situation? Do you think they are better?

6. Do you think your decision is based on facts in the situation or just on feelings?

APPENDIX

Tape scripts, responses, and an assessment of the degree of openness of the responses are included in this Appendix.

I.

Why don't you help us solve a problem? While this isn't a real situation, things like this sometimes happen.

* * *

I'm a teacher and I have this problem. My purse is missing. I discovered my purse was missing late in the afternoon right before school was to get out. It wasn't in the drawer where I usually kept it, but I knew it was there before I went to the teacher's lounge. The class was watching a movie while I was out of the room.

I decided to ask the kids in my class if they knew anything about my missing purse. I questioned each kid in the class. No one knew anything about the purse.

The last boy I questioned was a new boy in our class. I didn't know him very well. All the time we were talking he looked out the window. He didn't once look me in the eye!

* * *

WHAT DO YOU THINK HAPPENED TO THE PURSE?

1. The new boy probably took it.
2. The teacher probably lost it.
3. Any one of the kids in the class might have taken it.
4. Someone from outside the class probably took it.

* * *

The audio flashcards present four possible solutions. Choose the one you think is best in order to solve the problem.

* * *

OPEN	CLOSED
2 3	4 1

II.

Why don't you help us solve a problem. While this isn't a real situation, things like this sometimes happen.

* * *

One day Johnny and his friend finished their lunches early and decided to go back into the classroom and watch the pet gerbil the teacher had bought for the class. Johnny decided to take the gerbil out of the cage and let it rest in his hands, but as he was taking it out of the cage, the gerbil fell to the floor. The boys knelt down to pick it up, but they saw that it had broken its neck and was dead. Johnny and his friend just looked at each other. Finally, Johnny picked up the gerbil and put it back into the cage. "Don't say anything, please. I don't want to get in trouble," Johnny said to his friend.

After class started in the afternoon, the teacher passed by the cage and saw the dead gerbil. "Does anyone know anything about our gerbil?" the teacher said to the class.

* * *

WHAT DO YOU THINK JOHNNY'S FRIEND SHOULD DO?

1. Tell the teacher what happened immediately.
2. Tell someone besides the teacher who he knows will tell the teacher (a tattle-tale).
3. Don't tell anyone. Just keep quiet like Johnny asked.
4. Try to get Johnny to admit he did it and take the punishment.

* * *

The audio flashcards present four possible solutions. Choose the one you think is best in order to solve the problem.

* * *

OPEN	CLOSED
4 1	3 2

III.

Why don't you help us solve a problem. While this isn't a real situation, things like this sometimes happen.

* * *

Two boys were looking excitedly at several items in a department store one night after school. After several trips down each isle of the store they finally decided they better get home for supper. Just as they were headed out the door the store manager stopped them and said to one of the boys, "Hey you, wait a minute." He insisted the boy remove everything from his pockets and that's when he saw the jackknife. It was the same kind of jackknife that the store sold, but it didn't have a price tag on it. It looked like it hadn't been used. The boy said he had bought the jackknife before but hadn't used it yet.

* * *

WHAT DO YOU THINK?

1. Your friend really stole it.
2. The store manager really has it in for kids and always tries hard to get them in trouble.
3. Your friend had bought it previously like he said.
4. He had been looking at it and he walked out forgetting to pay for it.

* * *

The audio flashcards present four possible solutions. Choose the one you think is best in order to solve the problem.

* * *

OPEN	CLOSED
3 5	2 1

"GORGOLS"

MATERIAL DESCRIPTION:

A musically-based story about a creature with the face of a person and the body of a turtle who is actually a little boy with a shell surrounding him. The story tells of his eventually finding love and understanding which leads to losing his shell. On the tape, the narrator tells the story to a large group of elementary children, and their interactions (laughter, singing, etc.) are also in the tape.

FIELD TEST PROCEDURE:

The material was used solely in group situations--both small group and large class. Aside from the teacher, there was no other instructional component. Prior to the playing of the tape, the children were told they were to listen to the story so that they could discuss it following. The discussion focused on: what the story was about, running away from home (a part of the story presented), and similar experiences the children had felt.

DATA COLLECTED:

Continuous behavioral observations were recorded on specific children in the group who had previously been assessed as advantaged auditory learners.

		L.D. Classroom	Regular Classroom	Trainable Retarded
Stage I *	1st grade classroom		2	
	trainable children (small group)			3
Stage IIa*	2nd grade classroom	2	2	
Stage IIb*	5th grade students (small group)	2		

In addition, three teachers completed teacher evaluation forms, and in general evaluators commented on the behavior of the children in the classroom.

PREREQUISITES:

The prerequisites children need are process-oriented. Those children capable of and used to responding openly will gain more from the use of this material.

ANALYSIS OF DATA:

The analysis which follows is organized into questions.

Can children be expected to learn from this tape and discussion?

It depends upon the type of children. Those children with a mental age of less than seven are still very concrete. They see the main character as a turtle, and do not understand the transition to a little boy. Children over seven mentally tend to grasp the underlying message more easily. Children around ten mentally usually get the message. All the children learn, therefore, but at different levels.

What types of response can be expected?

During the cassette tape, there is plenty of opportunity for reaction. Usually a child will laugh or clap or sing along with the narrator. In a large group, there may be some very quiet periods (the children are anticipating) interspersed with some more noisy ones. In all our field testing, the children were observed to be "very attentive," and all interviewed said they liked it.

How long is the experience?

The tape itself is approximately 10 minutes. The discussion following can run from as little as three minutes to as much as twenty. In one classroom, the follow-up activities involving acting out feelings non-verbally involved all 19 children totally for 35 minutes. It probably depends on the level of understanding and the type of commitment to involvement the teacher and the children are willing to undertake.

How much preparation does it take to use this material?

Listening to the tape and reading through the user's guide is strongly recommended. It would help if the teacher knew beforehand the sequence of the story to be able to observe "clues" for later discussion. Some reassurance could be necessary when the tape is playing with the kids. All the teachers rated the tape "very worthwhile," so it must be worth the effort.

Is the material stand-alone?

This tape has more adult appeal than most materials for children. You and the children may find yourselves referring to "Gorgols" long after the tape has ended.

The discussion, however, can be very important and should not be slighted. Someone who knows the children fairly well should lead the discussion for maximum benefit.

After the discussion, however, the children could listen alone or in groups. Many of the children requested (i.e., "begged") to hear it again and again.

What kind of equipment or extra materials are needed?

Just a cassette playback unit for the playing of the tape. A teacher may want to have some paper handy for follow-up activities, but there is no necessary follow-up except the discussion.

Any extra tips?

Not surprisingly, responsiveness is more apt to be elicited if the children are arranged in a close group, perhaps on the floor, rather than at desks or tables. There may be more movement noticeable when the children are all together, but the tape seems so interesting that this is not usually a hindering factor.

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*"Stages" refer to stages of development that have been defined by the project staff. A detailed examination of the Learner Classification System and the developmental stages can be found in Bridging the Gap Between Materials and Learners: Maximizing Auditory Instruction, Auditory Learning Monograph Series, Consortium on Auditory Learning Materials for the Handicapped, July 1974. Briefly, the stages are characterized as follows:

Stage I - characterized by: egocentric, isolated thoughts, necessity for proximity to learning situation, and individuality of responses.

Stage IIa - characterized by: inconsistent and unpredictable cognitive behaviors, necessity for concrete objects, selectivity in generalizing, and affinity for the obvious.

Stage IIb - characterized by: ability to solve problems if accompanied by concrete objects and sequenced events, integration of self-concept, and selectivity in generalizing.

Stage III - characterized by: ability to solve verbal problems logically, exaggerated concern for self, and emphasizes group relationships.

NOTE: This material was loaned by the producer (Educational Design Associates) in a prototype version for examination by the Media and Materials Development Unit. Results of the examination were forwarded to the producer.

THE USE OF ENVIRONMENTAL SOUNDS TO ELICIT LANGUAGE

Phyllis O'Connor

OBJECTIVES

- --to verbalize words or statements in response to non-verbal (environmental) auditory stimuli
- --to attend to an auditory task
- --to increase awareness of environmental sounds

DESCRIPTION OF LEARNERS

The students were four congenitally blind children, ages five and six, who attend a half day preschool for visually impaired. All have average intelligence.

PROCEDURE

Materials:	Thirty-six sounds recorded individually on audio flashcards
Equipment:	Audio flashcard reader and Tape recorder (for recording entire session for later examination)
Setting:	Quiet room

The four children were grouped in various combinations during the instructional experiences. Only one session was with a single child. Six sessions were conducted with groups of two to four, during which it was necessary to take turns. For each child in turn, the sound stimulus was presented. The evaluator asked a probing open-ended question, such as "Can you tell me about that sound?" or "Tell me what you heard." If no response was elicited, the sound was repeated and the child was asked a closed question, "What makes that sound?" If a response was given, the evaluator asked further questions (probes) aimed at eliciting more language.

This procedure was repeated with each child in turn, with a different sound each turn, continuing for approximately 15 minutes. Two children had three sessions each, two had four sessions each. Thirty-six sounds were used in random order, with each child receiving each sound at least once.

At the conclusion of each session, each child was asked, "Did you like doing this?" and/or "Would you like to do this again?"

After each session, the evaluator played back the tape and recorded the children's responses on a record sheet--one record sheet per child per session. (Sample record sheet appears in the Appendix.) The evaluator also rated each child's interest as positive (+), indifferent (±), or negative (-). The children's ratings were also recorded as +, ±, or - based on their answers to the questions at the end of each session.

FINDINGS

A. This graph represents the average number of words spoken by each child in response to a single sound stimulus with no probes.

	Session			
	1	2	3	4
Child A	0	1.8	0	2
B	0	0	1	1
C	0	.7	.5	
D	0	.4	.5	

B. The following graph represents the average number of probes (repeated sound, question, command, incomplete sentence) per sound for each child.

	Session			
	1	2	3	4
Child A	4.2	3	7.2	4
B	4	2	2.8	2
C	3.2	2	3.2	
D	3.3	4.8	3.3	

C. Represented here is the average number of words each child said per sound with probes.

	Session			
	1	2	3	4
Child A	2.2	7.5	19.2	13
B	2.7	3.4	4.6	5
C	3.2	2.6	7.2	
D	5.6	8.2	8.4	

D. Types of Responses: The types of responses the children gave can be categorized as follows.

1) echolalic--repeating the words of the evaluator
2) imitation of the sound
3) identification by noun--naming of object from which the sound emanates, i.e., "bell"
4) identification of gerund--i.e., "bell ringing"
5) identification of sentence--i.e., "The bell is ringing."
6) clarification or description, usually in response to the who, what, when, where questions of the evaluator
7) explanation or expansion--contributing words beyond direct responses to sound or questions, i.e., telling of an exemplary situation

Types of responses in this order (1 to 7) typify earlier (1) to later (7) stages of language development.

The following graphs represent the percentage of each type of response given by each child during the sessions.

CHILD A

	Session			
Type	1	2	3	4
1	0	.08	0	.14
2	.14	0	0	.14
3	.57	.33	.29	.14
4	.14	.08	.24	.14
5	.14	0	.06	0
6	0	.33	.35	.28
7	0	.17	.06	.14

CHILD C

	Session			
Type	1	2	3	4
1	.14	.09	.11	-
2	0	.09	0	-
3	.86	.82	.22	-
4	0	0	.44	-
5	0	0	.11	-
6	0	0	.11	-
7	0	0	0	-

CHILD B

	Session			
Type	1	2	3	4
1	.17	0	.30	0
2	0	0	0	0
3	.33	.60	.20	.43
4	.33	.20	.30	.43
5	0	.20	0	0
6	.17	0	.20	0
7	0	0	0	.14

CHILD D

	Session			
Type	1	2	3	4
1	.15	.21	0	-
2	0	.07	0	-
3	.54	.50	.37	-
4	0	.07	.46	-
5	.23	0	0	-
6	.07	.14	.18	-
7	0	0	0	-

E. Ratings: The children's ratings of the experiences were unanimously positive. Every one invariably answered yes when questioned as to whether he liked the experience and would like to repeat it.

The evaluator judged their interest and attention as exceptionally high. The only significant distraction was the audio flashcard reader. Two children wanted to touch and operate the machine each session. They were able to attend to the sounds in spite of this and it did not seem to affect their responses. The other two children ignored the machine completely.

DISCUSSION

The amount of language, as measured by number of words, did increase. Each child said more, with and without probes during his last session than during his first. There was no corresponding increase in the number of probes necessary to encourage this increase in number of words. For three children, the average number of probes per sound was the same in their first and last sessions. For one child, the number of probes was reduced by half, and his average number of words continued to increase.

The most frequent type of response was identification by noun. It would be interesting to discover whether and when this is typical in language development of young blind or sighted children.

The arrangement of types of responses from one to seven is hierarchical, and each child's responses did tend to move toward seven over the sessions. Child C's responses especially show this movement, from mostly type three responses in sessions one and two to some four, five and six type responses in session three, with the same number of probes. The changes in types of responses of all four children did not seem to correspond to numbers of probes.

IMPRESSIONS

A. The children enjoyed the auditory stimulation of these experiences. Deprived of his other distance sense, a blind person usually welcomes any pleasant stimuli received through his auditory channel. The children also enjoyed the "guessing game" aspect of this activity.

B. There is a danger in using this type of activity. In teaching a child to tell what a sound is or what makes that sound, the result may be increased proficiency at labeling. The blind child needs tactile/kinesthetic experience to understand that concept.

The sounds used in this activity were carefully selected to be from within the environments of these children. But even with this precaution, there were instances when a child could say, for example, "a cow mooing" and when asked, "Where is a cow?" he touched the audio flashcard reader and said, "in here, in the machine." He was learning to label a sound correctly, but had no concept of cow. It is not that he thought an animal was in the machine, but that, according to his experiences, that was the location from which that sound emanated.

C. The prevalance of identification by noun type responses invites speculation as to language development of congenitally blind children. A sighted person identifies an object mainly through vision, then, whatever action that object does or receives, producing sound, serves to broaden the concept. Perhaps the blind child, not having identified an object through vision, identifies it--as an object--by the sound. For example, to the sound of a ringing bell, a sighted person might say, "bell ringing," while these blind children most often said "bell." Perhaps, to them, a bell is no bell till you ring it.

CONCLUSION

Using sound stimuli to elicit language was successful with young blind children. Changes did occur over four sessions. More words were spoken; somewhat higher levels of language were shown. The children attended to the tasks very well and enjoyed the experience. The use of sound stimuli could be valuable and should be used in conjunction with tactile/kinesthetic experiences.

RECORD SHEET

Student Name ____________________
Evaluator ____________________

Stage Learner I
Date ____________________

Sound Stimulus	# & type Probe	Response # of words	Parts of Speech	Type	Inappropriate of Unrelated response

Evaluator's impression of student's interest and attention ☐

+ ± – Pupill's rating of the experience ☐